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ABSTRACT

This document profiles ten higher education institutions across the United States, documenting their roles as "engaged institutions," that is, institutions whose goal it is to produce graduates ready to move along a path of self-directed learning and growth. They are "interactive institutions" that have developed partnerships with civic, business, and political leaders to build better communities. Each profile provides a brief history of the school and its historical mission, provides data on funding and organization, discusses faculty roles, and describes its outreach programs. The profiles illustrate student and faculty community involvement; how cooperative extension programs have been expanded to serve a larger public; and how curriculums are being modified to make institutions more student-centered. Profiles are provided for: (1) Arizona State University; (2) Iowa State University; (3) Ohio State University; (4) Pennsylvania State University; (5) Portland (Oregon) State University; (6) Rutgers the State University of New Jersey; (7) Salish Kootenai College and the Flathead Indian Reservation; (8) Tuskegee University (Alabama); (9) University of California Davis; (10) University of Illinois at Chicago; and (11) University of Vermont. (Some sections contain references.) (CH)

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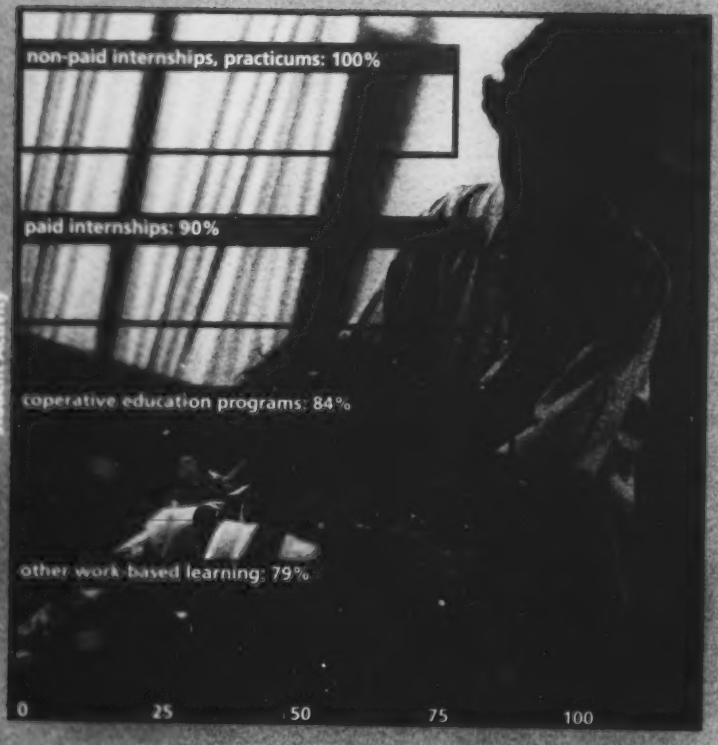
ED 430 499

THIRD WORKING PAPER

THE ENGAGED INSTITUTION

Profiles and Data

Public Research Universities Offering Student Outreach Programs



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Kellogg Commission
on the Future of State and Land-Grant Universities

Third Working Paper

ENGAGED INSTITUTIONS: A COMMITMENT TO SERVICE
Profiles and Data

"Nothing more surely builds community than engagement in shared tasks."[1]

—John Gardner

As public university educators examine their traditional roles of teaching, research, and public service, they need to envision ways that these missions can evolve as their institutions focus on serving the public in the next twenty years. State universities and land-grant colleges responded to the national call to action as our country moved from an agricultural to an industrial society. In this same spirit, they are training our leaders and moving our nation forward as we are transformed from an industrial to an information age.

As we look to the future, how should we define our educational "community" or the "shared tasks" that are emphasized by Gardner? A higher education community was once defined in terms of local or regional proximity, but now it is more likely to be interpreted in a global context that reflects our interdependence on telecommunications. Shared tasks are those problems and opportunities that are defined by a collaborative effort from both university educators and community leaders to help solve common goals. Depending on the nature of the tasks, some solutions may focus more on local or state concerns while others are part of a larger strategy to solve national or international issues.

Engaged institutions will produce graduates who will be ready to move along a path of self-directed learning and growth. These graduates will understand the connection between what they have learned in the classroom and the strategies that are necessary to apply these concepts to problems they will face in their careers and in their communities. They will be products of "interactive universities" which have developed partnerships with civic, business and political leaders to build better communities. Yesterday's "ivory tower" institutions which were designed to be separate from society can not possibly prepare today's graduates to help solve the problems of tomorrow.

The topic of "engaged institutions" is the third considered by the Kellogg Commission. This report will highlight:

- Strategies used by students and faculty to increase their involvement in their communities;
- Examples of cooperative extension services actively addressing community interests; and

- Program changes taking place at public colleges and universities to move curricula toward more interactive collaboration.

What evidence do we have that students and faculty are becoming more involved in their communities?

- Volunteerism is growing in America. Data from the National Center for Education Statistics (NCES) indicate that about two in five (43 percent) of high school seniors in 1994 reported that they had participated in community service activities during the past twelve months.[2] Students who arrive at public universities are even more experienced; three in four (79 percent) of first-time, full-time freshmen in 1997 had performed volunteer work during their last year in high school.[3]

- Alexander Astin, who has studied postsecondary educational trends for several decades, believes that volunteer activity develops leadership skills among undergraduates. For example, students who volunteer are more likely to support programs that promote racial understanding, to participate in programs to clean up the environment, and to understand the importance of developing a meaningful philosophy of life. Likewise, participation in college intership programs and independent research projects not only exposes students to off-campus academic experiences but also (1) improves the likelihood of attaining a bachelor's degree, (2) increases student satisfaction levels, and (3) helps students acquire skills for graduate or professional school entry.

- Service-learning courses are designed to combine academic study with a community service component. For example, a sociology class might link classroom analysis of problems associated with aging with a project involving students who volunteer their time with nursing home residents. In her recent book on service-learning programs, Barbara Jacoby summarized the following eight benefits she sees students acquiring from participation in these courses:

  - Developing the habit of critical reflection;
  - Deepening their comprehension of course content;
  - Integrating theory and practice;
  - Increasing the understanding of the issues underlying social problems;
  - Strengthening their sense of social responsibility;
  - Enhancing their cognitive, personal, and spiritual development;

- Heightening their understanding of human difference and commonality; and
- Sharpening their abilities to solve problems creatively and to work collaboratively.[4]

- A group of 65 undergraduates who had participated in a year-long service-learning program in the mid-1970s at the University of Virginia were asked ten years later to reflect on their experiences.[5] Researchers concluded that there were three main differences that emerged. Compared to a group of similar graduates who had not been involved in the program, service-learning students were more likely to:
  - Have had better defined career goals;
  - Have been interested in pursuing human service careers; and
  - Be current active volunteers in their communities (averaging 28 hours per month).
- Another mechanism to facilitate student involvement in local communities is the federal work-study program. This student financial aid program enables students to earn money for college expenses while performing a community service. These jobs can be broadly defined to improve the quality of life for local residents and can include areas such as literacy training, health care, tutoring, transportation, housing, public safety, crime prevention and control, and environmental issues. Since 1994, higher education institutions have been required to use at least 5 percent of their federal work-study funds for community service jobs. Momentum is growing for this combination of part-time jobs and interest in improving local concerns. For example, in 1997 a new program called the "America Reads Challenge" was started. Its goal is to mobilize 100,000 work-study tutors to help children enrolled in pre-school through elementary grades with literacy skills. For this program, the work-study wages are paid in full by the federal government and do not involve funds provided by colleges or universities.[6]

- Cooperative education programs provide another alternative to allow undergraduate students to combine the world of academic study and work. Here classroom instruction is integrated with a series of paid, productive work experiences in a field related to a student's career or educational goals. Typically the "co-op" student is able to earn money to pay for college expenses and usually completes a bachelor's degree in about five years. There are about 460 colleges offering co-op programs, and about 50,000 employers are providing internship opportunities in multinational corporations, small entrepreneurial businesses, government agencies, and non-profit organizations.[7]

- Faculty at public research universities spend about five hours per week in public service activities.[8] The large majority of public universities offer opportunities for faculty to participate in "engagement" activities through a variety of programs such as department-level initiatives (93 percent), institutes (90 percent), and service-learning classes (80 percent) (see Figure 1).

What are Cooperative Extension programs and how do they serve the public?

- The Cooperative Extension System (CES) is an education network located at 74 of the nation's land-grant universities, including 17 historically black colleges and universities. Established by Congress in 1914, the nationwide system operates as a unique partnership of the federal government through the U.S. Department of Agriculture, the Cooperative State Research, Education and Extension Service (CREES), and state and local governments.

- In 1995, Cooperative Extension activities involved millions of individuals including:

  - 5.6 million youth in 4-H projects and programs;
  - 3 million trained volunteers who worked with outreach programs;
  - Over 9,600 local extension educators working in more than 3,000 counties; and
  - International education programs taught by over 200 extension professionals in 17 countries.

- In a national survey conducted through Washington State University's Social and Economic Sciences Research Center, one in twelve households used Cooperative Extension services in 1994. By 1995, Cooperative Extension had a network of 2,400 education/information technology sites and the number continues to increase. This network of computers, telecommunications, and distance learning linkages provides cost-effective access to rural and metropolitan constituencies alike. Use of technology by the public is growing too. In a 1995 national survey by Washington State University, 44 percent of CES' clientele had computers in their own homes.

- Industrial extension programs, located at many of the NASULGC institutions, are working with small and medium-sized manufacturers to maintain their competitive edge. A 1994 survey showed that 85 NASULGC institutions provided in-depth help to business and industry more than 16,000 times and served almost 262,500 businesses and other organizations.

- Approximately 70 percent of the Cooperative Extension System's funding originates from state and local sources with the remainder coming from the federal government. In addition, extension efforts have been supplemented by city governments, grants, and private sources.

How are educators modifying curricula to create more "student-centered" universities?

- Internships, cooperative education opportunities, and other work-based learning programs are now available at the large majority of public research universities (see Figure 2). The academic advantages of these programs have affected a wide variety of campus experiences for undergraduate students. In 1996 the majority of institutions reported positive results for paid work-learning programs in areas such as retention, course improvement, placement success, and financial assistance (see Figure 3).

- As part of this process, educators have reached out to leaders in their communities to find areas of common concerns, which would lead to more collaboration. During 1986–1996, the most typical efforts included:

  - Working more closely with schools and school districts (91 percent);
  - Collaborating more extensively with other institutions (82 percent); and
  - Receiving more support from businesses in the area (73 percent).[2]

Joint meetings between higher education and local business representatives have led to the creation of credit and non-credit courses for business employees, the shared use of equipment, partnerships for regional development, and special scholarship and loan programs (see Figure 4).

NOTES:

1. John W. Gardner. "A Call To Build Community." *Wingspread Journal*, Vol. 18, Issue 4, p. 21. The Johnson Foundation, Autumn 1996. From *National Renewal* by the National Civic League Press and Independent Sector.
2. U.S. Department of Education, National Center for Education Statistics. *The Condition of Education, 1997*. Washington, D.C.: U.S. Government Printing Office, 1997, p. 124.

3. Linda Sax, Alexander W. Astin, William S. Korn, and Kathryn M. Mahoney. *The American Freshman: National Norms for Fall 1997.* Los Angeles: Higher Education Research Institute, 1997, p. 15.

4. Barbara Jacoby and Associates. *Service-Learning in Higher Education: Concepts and Practices.* San Francisco: Jossey-Bass, 1996, p. xvii.

5. Nancy J. Gansneder and Paul W. Kingston. "A Longitudinal Study at the University of Virginia." In Jane C. Kendall and Associates, *Combining Service and Learning: A Resource Book for Community and Public Service, Vol. 1.* Raleigh, N.C.: National Society for Internships and Experiential Education, 1990, pp. 409–412.

6. U.S. Department of Education. *Expanding Federal Work-Study and Community Service Opportunities.* Washington, D.C.: U.S. Government Printing office, 1997, pp. 2–4.

7. Polly Hutcheson, ed. *Directory of College Cooperative Education Programs.* Phoenix: American Council on Education and Oryx Press, 1996, p. v.

8. U.S. Department of Education, National Center for Education Statistics. *Instructional Faculty and Staff in Higher Education Institutions: Fall 1987 and Fall 1992.* Washington, D.C.: U.S. Government Printing Office, 1997, p. 39 and U.S. Department of Education, National Center for Education Statistics. *Digest of Education Statistics, 1997.* Washington, D.C.: U.S. Government Printing Office, 1997, p. 242.

9. Elaine El-Khawas and Linda Knopp. *Campus Trends, 1996.* Washington, D.C.: American Council on Education, 1996, p. 35.

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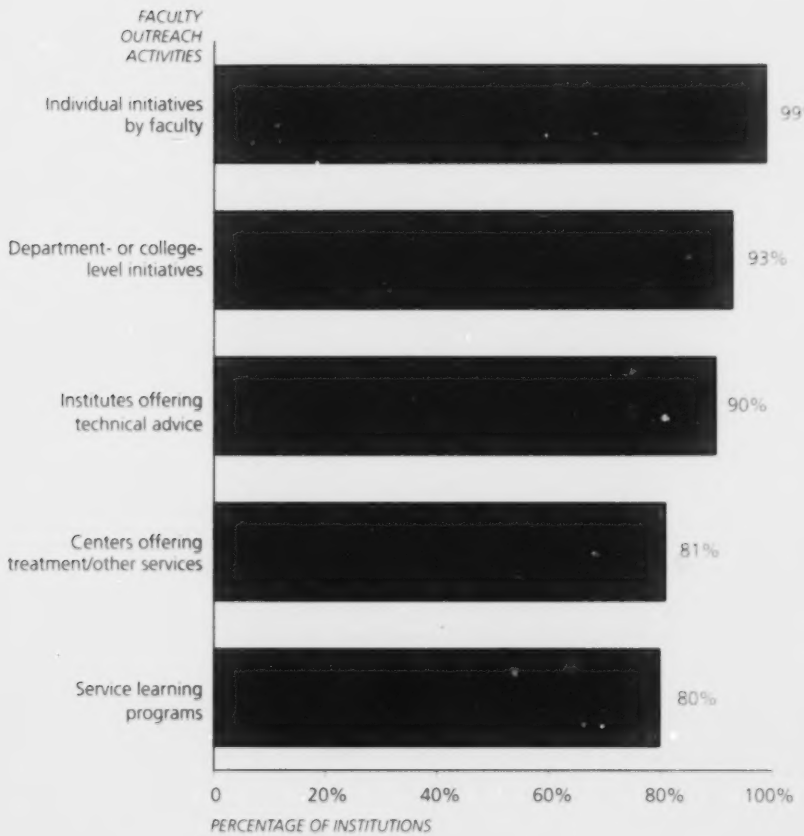
_____. *Instructional Faculty and Staff in Higher Education Institutions: Fall 1987 and Fall 1992.* Washington, D.C.: U.S. Government Printing Office, 1997.

FIGURE 1

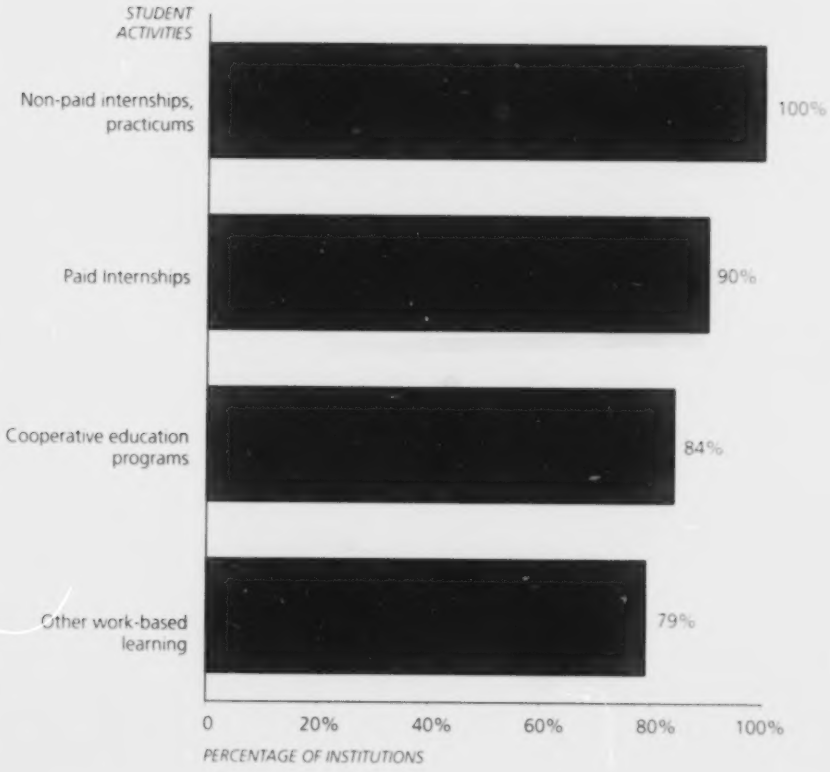
Public Research Universities Offering Academic Outreach Activities for Faculty: 1995



Source: Elaine El-Khawas, *Campus Trends, 1995*, Washington, D.C.: American Council on Education, 1995, p. 49.

FIGURE 2

Public Research Universities Offering Student Outreach Programs: 1996



Source: Elaine El-Khawas, *Campus Trends, 1996*. Washington, D.C.: American Council on Education, 1995, p. 51.

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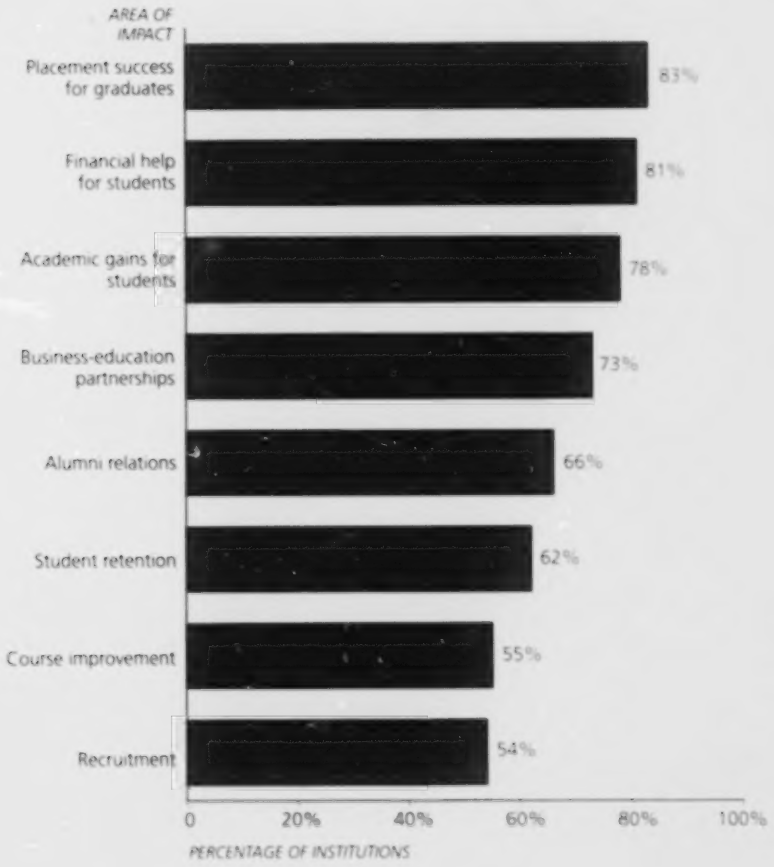
FIGURE -3

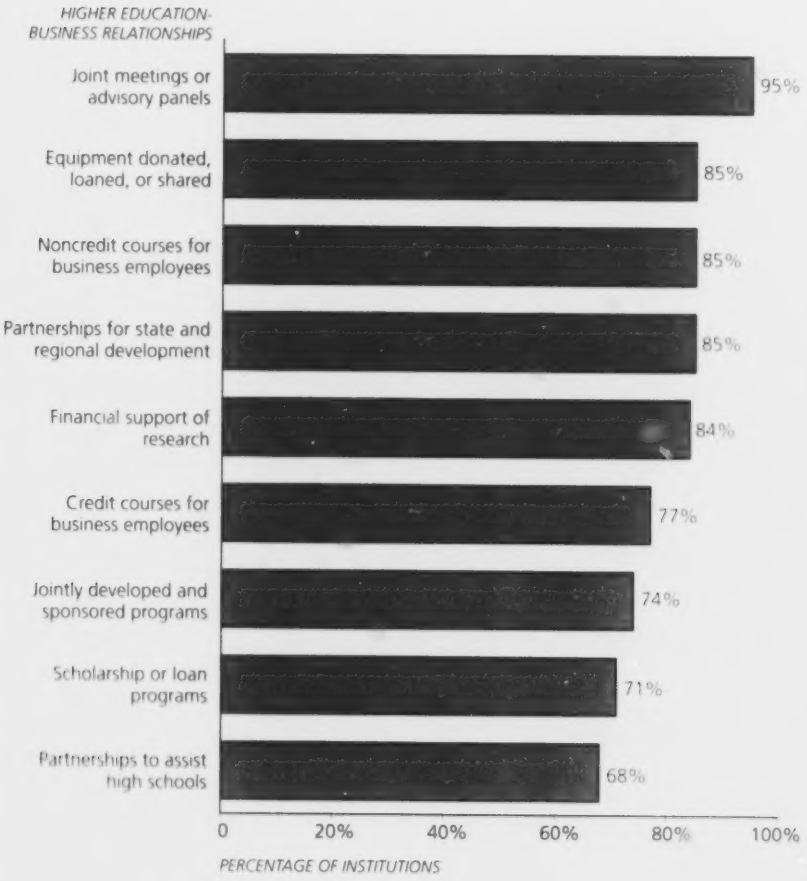
Public Research Universities Reporting Positive Results with Paid Work-Learning Programs: 1996



Source: Elaine El-Khawas, *Campus Trends, 1996*, Washington, D.C.: American Council on Education, 1996, p. 59.

FIGURE 4

Public Research Universities with Formal Ties to Business or Industry: 1996



Source: Elaine El-Khawas. *Campus Trends, 1996.* Washington, D.C.: American Council on Education, 1996, p. 39.

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Arizona State University: *A New University*

Arizona State University is the only public research university in metropolitan Phoenix, a city of 2.7 million people constituting 62 percent of the state's population, in one of the fastest growing regions of the country. In preparation for that growth, ASU is "one university geographically distributed" with three anchor campuses and an extended campus designed to respond to local needs, national trends and opportunities. Enrollment at ASU's multiple campuses stood at 49,500 in the fall of 1997, and is expected to increase to 75,000 by 2015.

ASU in Context

ASU began as a Normal School in the Arizona Territory (1885) with an explicit mandate for instruction directly relevant to the citizens and educational needs of the Territory. This mandate has remained constant throughout the development of the institution as it evolved from the Normal School to Teachers College to State College and, in 1958, to Arizona State University.

By most measures, ASU is a new university. Graduate education began in 1937, approval to award the Doctor of Education was granted in 1955 and Ph.D.-granting ability was first approved in 1961. Development of the full complement of undergraduate programs paralleled developments in graduate education, and in 1997–98 ASU granted 7,217 bachelor's, 2,275 master's and 285 doctoral degrees.

The university took on a new look with the establishment of ASU West and opening of this anchor campus's first building in 1988. The look changed again in 1996, when the first classes were offered at ASU East Campus, the third anchor campus for the university's structure. ASU Extended Education, headquartered in central Phoenix, serves the public sector's needs as well as those of corporate sector constituencies and facilitates greater involvement with local communities and neighborhoods. Through these different units, ASU, as one university geographically distributed, is fashioning a modern university that applies the strongest features of the traditional major research university to the rapidly evolving needs of the metropolitan area and the economic and social issues confronting the State.

ASU can best be described as prismatic, reflecting multiple characteristics, some of which are seen in more traditional universities and some of which exist in newer universities. The 44,000 students at ASU's main campus, for example, include those in the highly selective Honors College of 1,800 students, as well as large numbers of students of traditional college age who live in residence on or near the campus. At the same time, the main campus has a large population of working adults, both undergraduate and graduate, who live away from campus. More than half of the ASU Main undergraduates come with 12 or more hours of transfer credit; ASU West exclusively and ASU East primarily are upper division and master's degree campuses. The ASU Extended Education campus serves the full range of constituents by facilitating and offering undergraduate degree programs, site-based master's instruction, and specialized programs such as one for Executive Leadership, as well as

non-credit and non-degree courses.

The profile of ASU's student body resembles an inverted triangle—the smallest class is the freshman class and the largest is the senior class. Thus, among the university's more unusual features is its very strong partnership with the 11 campuses of the Maricopa Community Colleges. In addition to comprehensive articulation agreements, for example, ASU advisors are located on site at local community colleges. ASU West's University College hosts community college instruction on its campus and shares faculty with its local community college partner. ASU East's local community college partner is located on the same multi-use campus, and the two collaborate closely on instructional delivery, program development and student/faculty/staff housing.

ASU has multiple educational responsibilities—from baccalaureate to Ph.D.—to our cosmopolitan community and its industries. As life-long learning becomes increasingly important, this part of our mission only becomes more central. Arizona is a highly urbanized state with an economy shaped increasingly by high tech, financial and service industries. A key challenge of future partnerships is to cooperatively plan and deliver the types of educational opportunities to create the labor force needed by fast-paced corporate enterprises.

Similarly, the State and our local industries look to the research capacities of the university for the creation of new knowledge and its application. As a Research I University, and the only research university in the greater Phoenix metropolitan area, ASU engages in highly competitive funded research in an array of fields common to major research universities everywhere. Some of the strategic investments of the university are targeted toward traditional, basic research while others focus on more immediate topics such as flat panel display technology, nano technology, biomedical, or applications of remote sensing for environmental planning. During the past decade, our traditional resources for teaching, research and service have begun transformation in ways that we believe will foster, strengthen and energize collaborative engagement throughout the university and with a broader range of community constituencies.

ASU's Approach to Engagement

ASU has proceeded on the assumption that "engagement" and "partnerships" mean that we are not guests or occasional participants in the leading policy arenas of Metropolitan Phoenix, our primary service area. Rather, we see our role as full-fledged, continuing partners bringing what we can to the table, fully cognizant that our contributions must be made in conjunction with the other major partners from the community. We view our contributions as those that are unique to the expertise and mission of the university. We take care not to compete with other institutions, public sector and private, but rather supplement them through our research, instruction and expertise in applications and technical assistance.

Our efforts to date are still very much work-in-progress, so we offer, at best, a sketch of our concept and the activities that have occurred to date to implement it. We recognize that our way of dealing with a major set of long-term partnerships will continue to evolve over time. As well, we can offer the mechanisms we have used, cognizant that they, too, will evolve and develop over time.

Central to identifying how best to engage major community issues on an extended basis is working with key community organizations to identify those issues. We have done this, first, by working with the umbrella group of key business leaders in the community through their organization known as the Greater Phoenix Leadership, and second, through a companion organization, the Greater Phoenix Economic Council, whose membership includes elected leaders from the various major local municipalities as well as business leaders.

These two community groups, each with our assistance, conducted a series of activities—surveys, major public fora, and focus groups—and identified, in rank order, the leading issues of concern for the metropolitan area. The two lists were virtually synonymous. We, then, through the Morrison Institute for Public Policy, ASU's public policy research arm, joined with the *Arizona Republic*, the major statewide daily newspaper, and made these findings readily available to the citizens and leadership of Arizona. The university lent its expertise in conceptualization, design, data collection and analysis enabling the leadership of the Valley to confidently define and prioritize the key elements of its action agenda.

Choosing the activities in which the university will engage on a sustained basis occurs in three ways. First, we focus on the community-driven agenda, drawing heavily on the issues identified through community processes. Currently, involvement with K–12 (which is also the Governor's top priority), urban growth management and environmental quality are at the top of the list.

Second, we continue to develop a longer-term university/community agenda, but one we seek to sustain over a longer period of time. A long-term commitment to strengthening neighborhoods, "building them from the inside out" as one school of thought describes it, is an example of one of our longer-term university identified endeavors.

Finally, we encourage and seek to focus the myriad of individually initiated research and service projects that relate to our metropolitan area. Recently, we identified 300 such projects in one college alone and conservatively estimate that activities across the entire university doubles, if not trebles, this number. These activities range from seven-figure, multi-year projects, run by one of our major public policy institutes, to small one-faculty, one-group projects. The nature of the activities in each of these three general areas involve university contributions of basic research, application of strategy and techniques, measures of assessment, technical assistance, and formal instruction.

Funding and Organization

A central issue for us, and for all NASULGC institutions embarking on major initiatives in these areas, is how best to organize and finance our endeavors. Here, too, we are feeling our way through a variety of approaches.

As a non-land-grant institution, we have never had the equivalent of a line-item in the budget for extension, experiment stations or similarly targeted outreach activities; funding generally has been an integral part of our more traditional research, teaching and service resource allocations. Thus, we start from the assumption that there will not be a single major source of funds for such endeavors, either from

the state or federal government. Rather, we believe funding for these endeavors will come from a combination of internal university funds, traditional extramural funds, such as HUD grants for community development, and from community-based partnerships, where the relevant community partners make a clear, ongoing commitment.

We have had encouraging results in identifying new forms of partner funding in this last category. For example:

- Motorola, as part of their $11 million commitment to the university's capital campaign earmarked, at our request, $2 million for community-based programs. One of the programs Motorola targeted is our Urban Fellows Program, where we bring major community leaders (City Council members, County Supervisors, leaders of key non-profits, for example) into a year-long fellowship-in-residence at the university.
- Wells Fargo Bank made a $1.1 million commitment for a professorship in our Chicano/Chicana Studies program and for program development in conjunction with our Center for the Advancement of Small Business to encourage community-based projects that involve members of the Hispanic community more actively in small business and entrepreneurial development activities.
- Bank of America contributed $1 million to endow an exemplary teachers' program. With matching funds from our College of Education, we now have a program to assist Arizona classroom teachers in preparing for national certification through the National Board for Professional Teaching Standards.

Using this funding approach, we have learned that when the proposed activity is congruent with the interests of local constituencies, is clearly defined and engages the relevant communities, collaborative partnerships flourish.

This is equally true for engagements that link university resources with economic development and work force needs in the state. Like many of our peer institutions, our Research Park and the Arizona Technology Incubator fully engage a wide array of interests in quite traditional ways. However, we also have benefited from financial collaboration with the corporate sector for very specific industry-related activities. For example, Motorola and Intel are partners with ASU East to enhance and expand a Technology Lab for instruction and research. Similarly, Motorola has provided the funding for an Arizona Manufacturing Institute whereby ASU's Colleges of Business and Engineering jointly will provide instruction to create a new generation of manufacturing professionals. A grant from the US-Asia Environmental Partnership has funded activities to help environmental technologies companies export to the Philippines, and our Director of Economic Development continues expanding the scope of activities and involvement of university personnel and community partners as new opportunities unfold.

Like other institutions, ASU has made extensive indirect resource allocations for community-based activities through support of many of its research centers (i.e., Center for Business Research, Center for Urban Inquiry, Herberger Center for Design Excellence) as well as through its internal grants programs. More specific to ASU are programs such as our Loaned Executive program with the city of Phoenix. Each year, the city of Phoenix and the university exchange "loaned executives" in order to build closer ties

in particular areas of mutual interest. This year, the city's representative worked to develop a search engine for the Electronic Village which will serve the neighborhoods of Phoenix while the university faculty member assisted in program development for the city's Head Start program.

However, one of the richest resources the university directly contributes to the community may be the work of faculty and students who are involved in formal Service Learning instruction. Since Spring of 1994, almost 1,500 ASU students have contributed in excess of 160,000 contact hours through service learning. They have, for example, tutored more than 4,000 children through voluntary participation in a range of classes – physical geography, geology, math, English, plant biology, education, the Center for Solid State Science, and nursing. The interest on the part of students to participate in such programs has been overwhelming, and the responses they receive from their community partners is truly heartening. Each semester, more faculty recognize the potential service learning offers to combine inquiry-based research activities and/or classroom-based instruction with meaningful community involvement. Thus, the university is being challenged to develop the infrastructure to support program expansion to keep pace with the rapid growth in student, faculty and community interests.

Organizing these endeavors within the university continues to pose major questions for us. We have chosen not to establish one single office or person to run all of these activities, fearing it would stifle the university-wide energy we believe essential to make the concept of long-term, institution-wide engagement and partnerships work. A czar of engagement is not compatible with the traditions of outreach and service upon which we are building more extensive community engagement activities. Rather, we have sought to use a combination of techniques—some old, some new—to foster these activities.

Among the more traditional techniques is using our public policy institutes and centers as increasingly active players in the community interface. We have used funding agency interests in multi-disciplinary activities as a vehicle for expanding our linkages to the community, as well. When NSF made a 10-year grant to our Center for Environmental Studies for a Long Term Environmental Review of the entire metropolitan Phoenix region, we not only brought 58 faculty members together from multiple disciplines with over 25 community partners, but we connected the work of this scientific endeavor to the key environmental questions being raised by the community issues identification process. We build, in new and different ways, on what exists (organizationally and substantively) to foster new and increasingly dynamic exchanges with our community partners that, in turn, modify and accelerate our engagements.

Among the newer forms of organization, a Senior Executive Assistant to the President was appointed to oversee the development of our overall strategy and to tie the community-based endeavors to the strategic plan for our multi-campus university. This widely participatory endeavor, entitled The University for the Next Century, has as one of its four major components an examination of university-community partnerships. Through the Senior Executive

Assistant's office, we also have sponsored a competitive grants program that, in its first year, committed more than $200,000 to 12 specific neighborhood capacity building activities. As well, the President's Office has sponsored the development of a pilot GIS-based system to display all of the university work going on in the community. The initiative from the President's Office also serves to convene the major players from the faculty from time to time to explore overall themes and possible new initiatives for the future. The Senior Executive Assistant serves as the university's representative on several key community boards that are part of the issue development process and facilitates communication among various external partners and units within the university.

This is not a particularly tidy or definitive organizational structure, but it is one that enables us to continue exploring ways to maximize the university's participation in key community-based activities.

Rewards, Incentives and Accountability

With respect to faculty incentives and rewards, here, too, we are still feeling our way, seeking to use the existing mechanisms of grant funds, released time and financial incentives to deans, departments and faculty members. We have also done a major study of ways to give clearer meaning to "service" as part of faculty evaluation and compensation. That report is still being actively discussed throughout the university and has not yet led to specific implementation steps. We have found a rather substantial interest in participating in community-based endeavors at the college, school, departmental and faculty level, leading us to conclude that a mixed method of providing incentives and rewards does have functional value even as we explore ways of making more fundamental changes in our reward system.

Our professional colleges and schools have had the most experience in this area and we look to them to help shape the discussion for the university as a whole. But other units are also exploring new approaches. For example, the dean of the liberal arts college has, for several years, used a "report card" system to evaluate departments. One key indicator is an appropriate level of engagement by the unit as a whole. This approach enables all units to individually determine the scope and breadth of faculty involvement but clearly signals that the goal of making the university indispensable to the community is legitimate and valued. In a very different venue, we turned a Board of Regents' request to review faculty workload issues into the opportunity to revisit the many ways in which teaching and research now blend with action-oriented and community-based involvements. This provided yet another visible vehicle with which to underscore the synergism existing between the university's mission and the community's need for and expectations of university activities to further community interests.

It has been difficult to develop mechanisms of accountability appropriate to the model of the engaged institution we seek to create. In some respects, our traditional measures are applicable. For service learning, employing portfolios and similar contemporary techniques for measuring student performance are

useful devices. Likewise, when the community-based activity is research driven, peer reactions, replications and field testing serve us in good stead. But these are measures and approaches of the academy and for the academy.

Finding parallels to gauge community perceptions and experiences and to determine the short and long term impact of university involvement in very complex social and economic issues has proven more difficult. We have made some small steps. We engage our Urban Fellows in public fora, enlist their counsel and incorporate their contributions in our agenda and program development. Community representatives and faculty share the responsibility of evaluating grant proposals and assessing reports of proposal implementation in our competitive neighborhood capacity building grants program. Specific community requests to continue our service learning projects in their agencies, schools or neighborhoods provide useful measures of community satisfaction with the program. Similarly, our periodic surveys of student, alumni and community perceptions and satisfaction with ASU are important sources of information. And, while current partnerships, particularly those involving large financial commitments, are indications of confidence in the university's ability to deliver, the real test will be our ability to sustain these commitments over time and to leverage them for future activities.

Our Engagement in Retrospect

All in all, we can report a major increase in university involvement in community engagement and partnerships, even as the path to these new endeavors is, at times, crab-wise. The publicly-announced commitment to these endeavors appears to have many elements of the university community willing to work together to find ways to institutionalize this new concept.

We have observed that our partnerships include all types of institutional, organizational and individual involvement and vary from topic to topic and change significantly over time. There is no single source of funds to support community-based involvement and forging a mixture of funding arrangements has been more successful in some areas than others. Yet, genuine partnerships provide a rich array of resources, not simply dollars, that make significant engagements possible. The tension of accommodating the traditional teaching and research interests of the university while responding to community demands persists. But, as we seek to develop a new model for the metropolitan public research university, we are modifying our reward and recognition systems and clarifying our institutional priorities in ways that are gaining support across the university.

We continue to experiment with new organizational arrangements in order to build the infrastructure that will facilitate and support greater community involvement, but we are pleased with the start we have made. We have begun efforts making accountability a visible part of our community-based endeavors, but our efforts have largely been focused on internal mechanisms. We have much to learn about how to assess the external impact of our many activities and how to determine appropriate mechanisms for gaining and using feedback and assessments from our partners to improve and sustain successful community-based involvement.

We are optimistic. The momentum we are observing is moving us toward being a more fully engaged institution, one in which traditional university activities and expertise have increasing relevance for and involvement by the community. When deans and chairs, directors and supervisors all clearly and forcefully signal that establishing, nurturing and sustaining meaningful community engagements is a priority of the institution, something energizing occurs. Faculty, staff and students appreciate the importance of being part of a larger collaboration that addresses key social and economic issues for which their expertise and energy is both useful and valued.

We do not expect the path we have chosen will be smooth or straight, but rather it will be full of surprises, twists and turns. ASU views itself as a prototype of the major metropolitan research university of the future and welcomes inquiries from and conversations with other universities that have common interests.

Iowa State University: *The Evolution of Engagement*

History and Overview

Iowa, with one-fifth of the world's most productive land, is one of the most agriculturally dominated states in the nation. Its strong agrarian roots also led Iowa, in 1864, to become the first state in the nation to accept the terms of the Morrill Act, which established the nation's system of land-grant universities and the first large-scale effort in the world to engage higher education with the general population.

Iowa State University, which the people of Iowa designated as the first land-grant university in the nation, is where the two programs that would become the foundation of the land-grant outreach mission began. Both the Cooperative Extension Service and the Agriculture and Home Economics Experiment Station systems began as programs initiated by Iowa State to become engaged with the people of Iowa.

As a result, the roots of traditional outreach services—which were established primarily to serve rural America and the agriculture industry—run deep and strong in Iowa.

Throughout the first century of the land-grant movement, Extension was the land-grant university's primary form of outreach. It was largely a one-way form of outreach, and engagement with constituencies consisted primarily of locally elected county extension councils that provided input on local programming and county extension office management. The university's research and academic divisions had relatively little engagement with the constituencies they served, with the exception of agriculture and "domestic sciences" (home economics; family and consumer sciences), the programs around which the Experiment Station system developed.

This was also true for Iowa State, even though it has had a staff position devoted to "transferring technology" from research to the private sector since 1935. (However, this activity also involved primarily agricultural products and livestock pharmaceuticals.)

Also as a result of Iowa's dependence on agriculture, the state was slow to change economically, and until the past decade, agriculture completely dominated the state's economy. That became painfully clear in the middle of the 1980s when the nation suffered a serious recession in the agricultural sector, and Iowa's entire economy suffered.

The ag crisis served as a catalyst for change in Iowa. Iowa's political leadership quickly developed a plan to rebuild and diversify Iowa's economy. An important part of this plan was to use the research capacities of its three state universities as economic development engines. It was at that juncture that Iowa State University, in particular, as Iowa's land-grant university, began a more rapid move from outreach to engagement.

Strategic plans were developed by each of the universities, and by the Board of Regents, which governs the three state universities. Each plan included ways in which the universities would become more engaged in the economic lives of the people of Iowa.

In addition, Iowa State developed a separate economic development plan, which consisted of three components: 1) strengthening production agriculture in Iowa; 2) adding value to Iowa's agricultural products; and 3) diversifying Iowa's

business and industrial base through science and technology initiatives. In 1996, Iowa State's economic development plan became part of the university's overall strategic plan with the addition of a goal that calls specifically for the university to engage in the economic development of Iowa.

While the initial catalyst for Iowa State University to become a more engaged institution consisted largely of economic and political factors and involved primarily the university's outreach and research enterprises, the concept of engagement has also begun to have a greater influence on the university's largest and most important mission—undergraduate education.

Excellence in undergraduate education is the Number One goal of Iowa State's Strategic Plan. In order to achieve this goal, the university must provide programs that not only educate students broadly, but that put them in demand in the job market. The best way to find out what qualities and skills employers are looking for in bachelor's degree graduates is to ask them, and the best way to change curricula so that graduates have these qualities and skills is to involve them. As a result, in the past 10 years, there has been a significant increase in the number of external advisory boards and councils for Iowa State's colleges and academic departments, as well as for units that have an external relations function or purpose.

In addition, there has been a rapid growth in the demand for distance education programs from Iowa State, from individual courses to complete degree programs. This growth is due in large part to the construction, in the early 1990s, of a statewide fiber optics network in Iowa called the Iowa Communications Network (ICN). This live, interactive communications technology puts every person in Iowa within 30 minutes of a site for live, fully interactive audio and video program delivery.

This institutional portrait identifies ways in which Iowa State University has been evolving from traditional outreach to engagement. It uses the decade of the 1980s as the primary starting point because that is when the most dramatic changes started to occur. This portrait looks at the primary areas of this evolution: Economic Engagement, Agricultural and Rural Engagement, Academic Engagement, the Changing Structure for Engagement, Challenges of Engagement and the Future of Engagement.

Economic Engagement

The most visible evidence of the university's evolution from outreach to engagement is its involvement in the economic development of Iowa.

As a result of the ag crisis of the mid-1980s, Iowa State developed an economic development plan and launched several new technology development and technology transfer initiatives to support this plan, and a significant number of these initiatives were in non-agricultural areas. This was largely a cooperative effort, for one of the first constituencies with whom Iowa State became more engaged was Iowa's political leadership.

Iowa's U.S. congressional delegation assisted the university by supporting an aggressive federal legislative agenda to build the university's research base and create new technology transfer programs, primarily in the physical sciences and agricultural product development. Former U.S. Rep. Neal Smith was largely responsible for securing funding that was

instrumental in creating Iowa State's Institute for Physical Research and Technology (IPRT), a complex of centers built around the materials research of the Ames Laboratory of the U.S. Department of Energy at ISU. One of these centers, the Center for Advanced Technology Development (CAT-D), focuses specifically on technology transfer, and the program it established was described by then U.S. Secretary of Commerce Ron Brown in 1994 as a "model program" for technology transfer nationally.

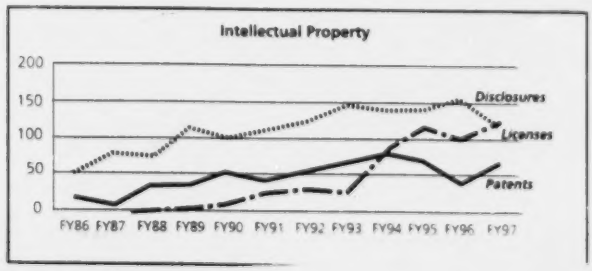
In addition, U.S. Senator Tom Harkin has provided leadership in the development of a Federal Aviation Administration Airworthiness Assurance Center of Excellence, that is built upon Iowa State's strength in materials science and engineering and nondestructive evaluation.

State political leaders, eager to help Iowa's economy rebound and diversify, supported a bold new initiative in agricultural biotechnology, providing more than $50 million beginning in 1986 to build a new Molecular Biology Building and provide start-up to attract new faculty to build the research program. By 1997–98, the program had grown to involve 260 faculty in 30 departments and five colleges, and the 50 new faculty who received $6.7 million in start-up funding had generated $32.7 million in sponsored funding for their research.

State and local government (City of Ames, Story County) support also enabled Iowa State to launch a research park and technology business incubator in 1986. By mid-1998, the initial 42-acre Phase I site was filled, and the Research Park opened up its 79-acre Phase II development. The Research Park currently has 33 resident companies, including major industries like Engineering Animation Inc. and AMPC; three full multi-tenant buildings; and a waiting list of new tenants for its business incubator. One measure of the growth of this new effort to become engaged with Iowa's economic development is the number of people employed in companies at the Research Park, which, by 1998, had grown to 1,100 with another 240 jobs in companies that have left the park.

The result of these and other initiatives has been a significant expansion of Iowa State's technology development and technology transfer activities. From 1986 to 1997 sponsored funding for research quadrupled, and the number of patents received increased fivefold. Another measure of the increased engagment of Iowa State's research enterprise with economic development is private sector interest in Iowa State's intellectual property. In the period 1985 to 1997, disclosures tripled and the number of licenses executed increased from two to 124, a figure that ranked first among U.S. research universities. As a result, Iowa State's income from intellectual property increased from a high of $372,000 for any year before 1990 to more than $1 million every year since 1991, and more than $4 million five of the past six years.

Another measure of the value in applied



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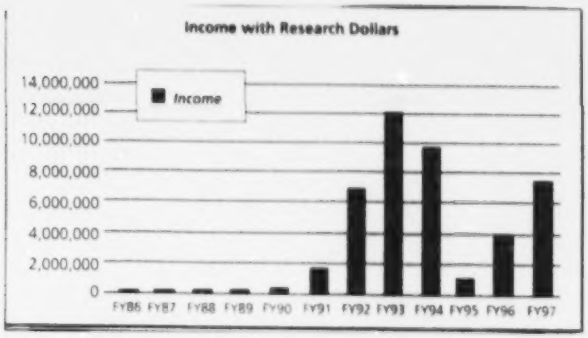

research activity can be found in the R&D 100 Award program, sponsored by R&D Magazine to recognize the 100 most significant technology applications of the year. Since 1984, Iowa State has received 18 of these awards.

Iowa State's increased engagement with the business and industrial sector is also evident in the growth of its industrial assistance programs. Iowa State's Center for Industrial Research and Service (CIRAS) was the first program of its kind in the nation. It was begun in 1963 as a part of the College of Engineering with a staff of two, one of whom was a field agent. CIRAS currently has a staff of 25 and is a part of a much larger industrial support effort in Iowa called the Iowa Manufacturing Technology Center (I-MTC), created in 1994 by Iowa State in partnership with Iowa's community colleges.

The I-MTC has a staff of 31, including 24 field agents. Client contacts have increased from 1,452 in 1994 to 2,396 in 1997.

Agricultural and Rural Engagement

Even with a stronger and more diversified industrial sector, the foundation of Iowa's economy will continue to be agriculture. That's why two of the three goals of Iowa State's economic development plan focus on strengthening production agriculture and developing new products and markets for Iowa's ag commodities, which has resulted in an increased engagement with Iowa's agricultural sector.

Recent (since 1985) initiatives in support of agriculture include:

- The Iowa Beef Industry Center and Iowa Pork Industry Center, which provide technology transfer services to help Iowa's livestock producers improve their operations;
- The Center for Crops Utilization Research, established with federal funds to develop new products and uses for Iowa's ag commodities;
- The Center for Designing Foods to Improve Nutrition;
- The Aldo Leopold Center for Sustainable Agriculture;
- The National Soil Tilth Laboratory and the National Swine Research Center, both USDA facilities;
- The Meat Export Research Center and Linear Accelerator Facility, which studies the use of irradiation as a food preservative to enhance exports; and
- The Brenton Center for Agricultural Instruction and Technology Transfer, a fiber optics distance education facility.

One of the more interesting stories in the evolution of engagement at Iowa State University involves the creation of a new partnership with the people in a large section of rural Iowa.

Southwest Iowa is one of Iowa's least populated regions, and while there are community colleges serving the region, all three of the state's public universities are in the eastern half of the state. As a result, the people of southwest Iowa have long

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felt that they are underserved in terms of access to higher education.

Additionally, there was a need to provide regional support for the economic development of this low-population area. In 1990, a coalition of people in southwest Iowa organized the Wallace Foundation for Rural Research and Development to support economic development, a key part of which was the expansion of educational and economic development programs and services for the region. That same year, representatives of the Wallace Foundation approached Iowa State University with a proposal. They would provide land and facilities if the university would establish a research farm and support the effort to create a center to provide educational programs, in cooperation with the four community colleges serving the area. Iowa State agreed and by 1993, the Armstrong Research Farm was established.

Iowa State worked with the Wallace Foundation to secure state funding to build an educational and outreach center, with an ICN classroom, at the farm. That facility, the Wallace Foundation Learning and Outreach Center, completed in early 1998, is the centerpiece of the Wallace Foundation's educational and economic development effort for the people of the 18-county southwest Iowa region.

Academic Engagement

As Iowa State University moved from outreach to engagement in research and outreach areas, a similar evolution of Iowa State's undergraduate education programs started. There were two catalysts for this evolution, occurring simultaneously:

1) Many of the people with whom Iowa State faculty and staff were engaged in these expanded applied research, technology transfer and economic and community development activities, were the community, business and industrial leaders who hired Iowa State graduates. They began expressing the desire for graduates who had more "real-world" experiences in their educational programs; and

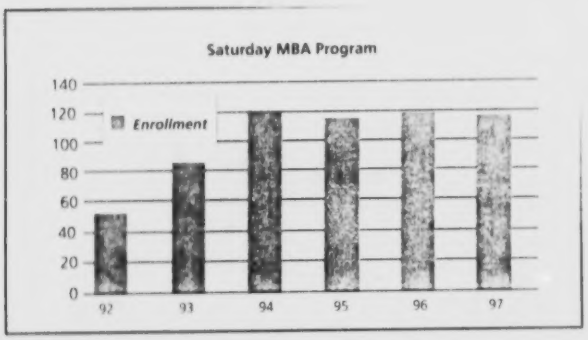
2) Iowa State faculty who were leading these new "engagement" activities, saw opportunities to engage their undergraduate students in these activities.

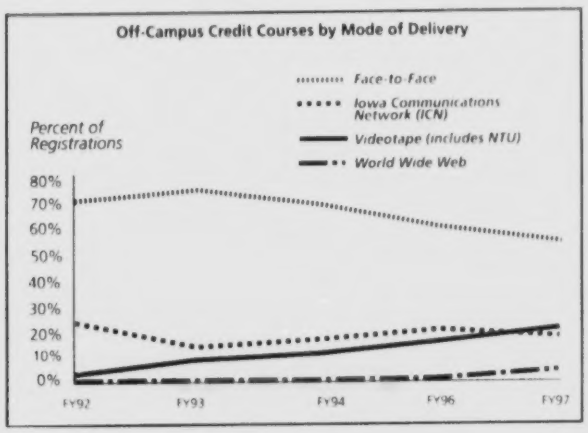
The result has been a rapid growth in the number of undergraduate programs and courses that engage students in real-world activities. Here are a few examples:

- The College of Engineering has set as goals that all bachelor's graduates will have a co-op or engineering intern experience of at least three months duration prior to graduation. (From 1996 to 1997 coop and internship agreements with industry increased 50 percent.)
- Several new corporate partnerships in the College of Business, including the 3M Corporate Laboratory, the Pappajohn Center for Entrepreneurship (with the colleges of Agriculture and Veterinary Medicine), and the Krause Challenge, provide undergraduate students with opportunities to learn and experience entrepreneurship through real-world business and finance projects.
- "Project Opportunity" is an initiative by Iowa State's College of Education to provide more effective teacher preparation. A key part of the program is a partnership with 13 area K–12 schools that gives teacher preparation students significantly more opportunities to experience classroom teaching—before their required senior-level student-teaching experience.

■ Three recent projects by the College of Design are designed to enable undergraduate students to become more engaged with community and business "clients" in addressing actual problems or needs. In "Community Visioning," senior-level students use computer imaging to show community officials what an area might look like with proposed improvement. More than 20 Iowa communities have been "clients" to these students. Another design class took on the challenge of creating a corporate image for a new airline, including new logo and interior passenger cabin design, much of which was adopted by the airline. Landscape architecture students studied Iowa's western Loess Hills and developed an outline for a national park for the area.

■ Two teams of electrical engineering undergraduate students helped VisionAire, one of the nation's newest jet aircraft industries, develop more efficient production systems for its newly constructed Ames, Iowa, plant.





■ The Helen LeBaron Hilton Chair in the College of Family and Consumer Sciences was created in 1996 to bring outstanding individuals from family and consumer sciences professions to Iowa State for one-year terms to bring real-world experiences into students' educational programs. The first two holders of the chair were a well-known national author and journalist, and a former Fortune 500 corporation CEO.

In addition, engagement with the Iowa business community and business people wanting to improve their opportunities for advancement were the primary reasons Iowa State launched its Saturday MBA program in 1992. This was the first program in the nation that allowed students to earn an MBA by attending class entirely on Saturdays. Enrollment in the program has grown from the initial class of 55 to more than 100 in 1997 and 128 students have completed the program, earning MBAs.

Construction of the statewide Iowa Communications Network (ICN) in the early 1990s also has been a catalyst for change in Iowa State's engagement in distance education. Courses offered over the ICN have increased each year since the

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system was constructed, and now comprise nearly one-fourth of ISU's off-campus credit courses. Similarly, Iowa State offered its first courses over the World Wide Web in 1996, and these courses now comprise nearly 5 percent of the total. (Videotape courses have declined slightly as a percent of the total, and face-to-face courses, which before 1993 comprised 70 percent of the total, now comprise just over half of the total.) In two years, Project Bio, a Web-based biology program, has grown from three courses with 28 students, to seven courses with 239 students.

Changing Structure for Engagement

The evolution from outreach to engagement—and engagement encompassing all aspects of the university's mission—has required significant organizational change, both in concept and in structure, and one of the most extensive changes has involved Extension.

The first significant reorganization occurred in 1966, when all Extension programs and services at Iowa State were reorganized into a single unit called University Extension. This reorganization was the result of new social and economic developments in Iowa and across the nation, not the least of which was the shift of Extension from a primarily rural focus to one that encompassed both rural and urban constituencies. With a university-wide, coordinated University Extension program, Iowa State was better able to focus the resources of the institution on meeting constituents' needs—both rural and urban. As part of this reorganization, the leadership of Extension was changed from a director of Cooperative Extension, reporting to the College of Agriculture, to a Dean of University Extension, reporting directly to the President.

However, that reorganization, while significant, represented little change in the actual programs and services offered, delivery method, or the one-way nature of the traditional Extension interaction. The move toward engagement began speeding up in the late 1980s, again as a result of the ag crisis and the loss of substantial Extension funding on the federal level.

In 1987, a comprehensive review of Extension was undertaken by a committee composed largely of Iowa citizens and Extension service users. Several changes resulted form this review, including:

- The Dean of University Extension was changed to Vice Provost for Extension and became part of the Provost's Office. This change placed research, teaching and extension/outreach under the same administrative division. The campus and field extension structure was changed, with an extension education director for each county and a team of field specialists supporting the educational programs in agriculture, families, youth, communities and business/industry. Total staff decreased from 466 in 1987 to 382 in 1992. (Staffing has increased slightly under this new approach since 1992.)
- Positions on local Extension Councils were changed from appointed positions to elected positions, with elections occurring every two years as part of Iowa's general election process.
- Extension has moved to a project approach to connect ISU colleges and Extension programming resources. "Block budgets" are allocated to the academic deans, who allocate the resources according to their constituent needs and demands. All faculty who were previously on Extension appointment

were placed on academic appointment, and their Extension services "purchased" with these block funds. This allowed university administrators to use Extension funds as needed by constituent demand rather than pre-existing staff specialty.

Iowa State's increased efforts in economic engagement resulted in the creation of several new programs and services, including the ISU Research Park and Iowa State Innovation System (business incubator), and several new federally funded research and tech transfer centers and institutes. One of the largest such initiatives built on the basic materials research of the Ames Laboratory, operated by Iowa State for the U.S. Department of Energy. The basic research nature of this USDOE facility does not lend itself to active involvement in economic development activities, such as participating in the commercialization of its research. Therefore, a new entity was created specifically to undertake a more applied approach to Ames Lab's basic research discoveries and to seek out private sector partners to develop and commercialize these products and processes.

The umbrella agency that was created, largely with the assistance of former Representative Neal Smith, was the Institute for Physical Research and Technology (IPRT). Its first three centers were: the Center for Advanced Technology Development, the Microelectronics Research Center, and the Center for Nondestructive Evaluation. Today, IPRT encompasses 11 centers and institutes, and nearly 900 staff, with an annual budget of $50 million.

In 1993, the Coordinating Council on Technology Transfer (CCOTT) was formed to coordinate all of Iowa State's technology transfer activities. CCOTT, chaired by the Vice Provost for Research, consists of representatives from each college and major units with a technology transfer purpose or mission. In 1996, the position of Coordinator of Economic Development was created, also reporting to the Vice Provost for Research.

Economic engagement has also resulted in restructuring in academic areas. One example is the College of Veterinary Medicine's creation of a new Department of Veterinary Diagnostic and Production Animal Medicine. This department brings together the diagnostic lab, veterinary extension and the production animal division of Veterinary Clinical Sciences to provide a more rapid and more effective response to the needs of livestock producers in Iowa.

Most of Iowa State's colleges and major technology development and technology transfer programs have corporate or industrial liaison staff to facilitate private sector support and commercialization partnerships. In addition, most colleges and major academic programs now have advisory boards consisting of representatives of the businesses and industries that employ Iowa State graduates, to recommend changes in Iowa State's academic programs to make them more relevant to the industry and valuable to the graduates.

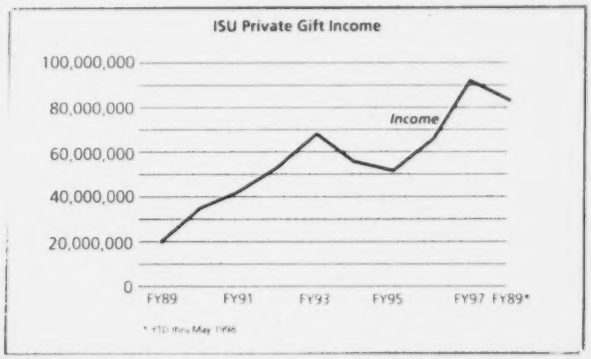
The Challenge of Change

These programmatic, organizational and structural changes have not come about without resistance or difficulty. The ag crisis of the 1980s and the resulting loss of state revenues brought an abrupt end to a period of rapid growth and expansion for Iowa State in the liberal arts and humanities. State leaders required all three of Iowa's universities to become more focused on their missions. Funding reductions and reallocations to more

"central" programs and services resulted in the loss or downsizing of some academic programs. There was resistance among some faculty to forming closer alliances with the private sector and to become actively involved in economic development. It was a difficult transition period, and the president who was brought in to begin this transition left Iowa State after less than four years.

One of the most difficult aspects of the reorganization has been the movement of Extension away from an almost total commitment to rural Iowa to a commitment that also includes business and industry and communities. The first Vice Provost for Extension, who was brought in to lead this transition and reorganization, left that position after less than five years.

Funding Iowa State's increased engagement efforts has also been a challenge, particularly when the ag crisis of the 1980s caused a reduction in state funding for all of Iowa's public sector. Major reorganizations and state employee layoffs occurred, including at the state universities. However, the ag crisis also presented opportunities for which Iowa State University was uniquely positioned. Iowa's elected officials—state and national—recognized that Iowa State's strengths in agriculture, science and technology were also key resources in the state's economic recovery and diversification. As a result, Iowa State has received significant new investments in state and federal funds, most of which have been targeted at specific research and technology transfer efforts. Several new centers, whose primary focus is engagement, have been established as a result.



Also as a result of the ag crisis and reduced public funding for the general university budget, Iowa State has engaged in an aggressive internal reallocation of resources (2 percent per year) to support the goals of its Strategic Plan. (From 1992 to 1997, Iowa State reallocated $23 million.)

Iowa State has also become more entrepreneurial to fund its increased engagement activities. As mentioned earlier, sponsored funding increased nearly 400 percent from FY'86 to FY'97, and income from intellectual property has increased even more dramatically. One of Iowa State's most successful entrepreneurial efforts has been private fundraising. Gift income has increased from less than $20 million per year in the late 1980s to more than $90 million in 1997 and 1998, with total gift activity exceeding $100 million each of those years.

Future Engagement

What has become clear in Iowa State's evolution from outreach to engagement is that engagement is not limited to one or even two areas of its mission. Fulfilling its mission as Iowa's land-grant university requires engaging all of the university's constituencies in the development of all

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of its programs and services, from undergraduate education to graduate education, basic and applied research, technology transfer, distance education, Extension and other outreach services.

Reorganizations and restructurings continue among Iowa State's colleges to support increased engagement. For example, the entire focus of Iowa State's new Engineering Teaching and Research Complex (ETRC), a $61 million facility under construction that is the cornerstone of Iowa State's efforts to "re-engineer" engineering education for the 21st century, is engagement of everyone involved in the engineering profession. This facility will create a learning environment where undergraduate education, research, technology transfer and continuing education occur simultaneously and together, and with the latest communications, design and computation technologies and methodologies.

With the success of its biotechnology initiative as a foundation, Iowa State is proposing a new initiative to create an interdisciplinary research effort in the fundamental plant sciences. Like ETRC, this initiative would engage all those involved in meeting the constantly increasing demand for food and fiber in the world.

Expanding engagement is also the primary impetus behind two institutional priorities that Iowa State has adopted over the past 10 years. One is increasing the international dimension and involvement of the university and the other is increasing the diversity of the university community.

Since 1985, Iowa State's international enrollment has increased from 8 percent of ISU's enrollment (2,146) to more than 10 percent (2,564), and the number of agreements and exchange programs with other nations has also increased significantly. The size and scale of these agreements is expanding as well. For example, an agreement between Iowa State and UNESCO, signed in 1995, created the International Institute for Theoretical and Applied Physics, whose purpose is to use science and technology outreach from Iowa State to bring economic progress to developing nations of the world. Iowa State has also entered into several new partnerships with former Soviet Block nations to help them convert to free market economies and to help them create extension-type outreach systems. In addition, Iowa State has significantly expanded its student and faculty exchange programs with institutions and government agencies in China, to expand educational opportunities for students and faculty, and to assist in opening trade doors in China for Iowa businesses and industries, to further Iowa State's economic development engagement efforts.

In response to the increasing diversity of our own nation, Iowa State has set a goal of 8.5 percent minority enrollment, ambitious considering Iowa's minority population is approximately 4 percent. Initial efforts in support of this initiative targeted recruitment of underrepresented students, which resulted in an increase from 3 percent minority enrollment in 1985 to 6.7 percent in 1997–98. However, retention and graduation for some minority groups has lagged far behind the overall university average, which has prompted the university to pay more attention to academic and personal support services for these students, to help them be more comfortable in the community and be more successful in their academic programs. Minority enrollment, retention and graduation,

and minority faculty and staff are all measures Iowa State is using to benchmark its progress in this area.

Iowa State's most significant achievement in its diversity and internationalization efforts came in 1995–96 when the ISU Faculty Senate adopted a new curriculum requirement. All students must take at least one three-credit course each in U.S. cultural diversity and international relations. Those requirements went into effect in the 1997–98 academic year.

One of Iowa State's most aggressive new engagement thrusts is an initiative called "Extension 21," which is an effort to develop an Extension program to meet the needs of Iowans for the next century. Extension 21, which has already received partial funding from the state of Iowa, recognizes the dramatic impact that information technology, the new federalism and the globalization of markets will have on communities in Iowa. Its focus is on helping these communities compete more effectively for opportunities to grow. This initiative requires total engagement with constituents in all three sectors—Iowa's communities, private business and industry, and public officials—in helping to create a total state environment that makes Iowa more competitive for future economic opportunities.

Lessons learned

The ag crisis of the 1980s was one of the most difficult economic times in Iowa's history. However, it also served as a catalyst for change—one that brought Iowa's public and private sectors closer together, thus speeding the evolution of engagement for Iowa and all three of its public universities. All three (Iowa State University, the University of Iowa and the University of Northern Iowa) are governed by the same Board of Regents. It was the Board of Regents that directed the universities to engage in strategic planning, and, as part of that strategic planning, to become more involved in the economic development of Iowa. At the same time (late 1980s), and also as a result of the ag crisis, Iowa's state government was undergoing extensive reorganization; however, through coordination between the governor and Regents' president, which included a commitment from the Regents and the university administrations to engage their research enterprises in economic development activities and to engage in regular internal reallocation of funding, the Regent universities were exempted from the state government reorganization, and were protected from extensive budget cuts. In fact, steady state allocations, internal reallocation and tuition increases allowed all three universities to substantially increase faculty salaries (approximately 30 percent from 1987 to 1990) and stem a disturbing exodus of talented faculty.

Perhaps the most important accomplishment of the Regents and the university administrations in the late 1980s, from an engagement point of view, was the implementation of strategic planning as an ongoing process. In 1989–90, following a three-year process in which each institution developed a more focused mission and underwent a series of more than 30 "audits," including comprehensive reviews of all academic programs to determine if any unnecessary duplication existed, and audits of all business and accounting procedures, the first strategic plans were developed and implemented. These plans cover five years, so new plans were developed and

adopted for 1995–2000, and work will begin soon on plans for 2000–2005.

The Strategic Planning process is now firmly embedded in Regent university governance and operation. Each institution presents an annual report to the Regents on progress toward its strategic plan goals; each institution is required to reallocate at least 2 percent of its budget annually toward strategic plan objectives; and all proposals for new programs or program expansions must be supported by the institution's mission and strategic plan. This persists despite the fact that there have been several changes in board membership and leadership, and institutional leadership.

Another lesson that has been learned is that the opportunities for growth clearly are linked to an institution's ability to become more engaged with its constituencies, particularly in an era of growing limitations on public finances. Most recent expansions of Iowa State's academic, research and outreach activities and facilities have been the result of partnerships with other public and private sector institutions and organizations, and it's clear that the greatest opportunities for future growth also will involve partnerships.

The Ohio State University: *From Outreach to Engagement*

Outreach/engagement is a meaningful and mutually beneficial collaboration with partners in education, business, public and social service. It represents that aspect of teaching that enables learning beyond the campus walls, that aspect of research that makes what we discover useful beyond the academic community, and that aspect of service that directly benefits the public.

—President's Council for Outreach and Engagement, 1996

If universities ever really existed as "ivory towers," the drawbridges were lowered a long time ago. Even in its inception during the 1870s and the industrial and agrarian revolutions in middle America, Ohio State already bore a deep responsibility to serve the people of Ohio. A legacy of more than 300,000 living alumni testifies to the education we have provided and the impact our graduates are making on their communities. And the work of our faculty and staff in our hospitals, clinics, regional campuses, Extension offices, and industrial research programs weaves a tapestry of partnership across our state.

Outreach is certainly not a new idea for public and land-grant universities. But despite our past success, the crises facing higher education in the early 1990s challenged the very paradigm of higher education. On top of steep cuts in taxpayer support, we were confronted by new demographics and new technologies. The federal government's contributions to the research infrastructure were eroding. Businesses were putting millions into educating the work force themselves. And our very public critics accused us of being unaccountable and unresponsive.

Ohio State, like other institutions of higher education, needed to demonstrate that it continued to deserve public support. Restructuring was a part of that effort, as were improving the student experience and focusing on quality. But we were compelled to move the university forward by much more than that. We needed to create a culture shift that looked beyond our boundaries and outside of our traditions. We needed to transform ourselves from a land-grant university with strong outreach units to an engaged 21st century institution, one with lively collaboration with our partners in education, business, industry, and the community.

One of our principal challenges was to define outreach so that members of the university community would have a common language and understanding of this aspect of our mission. Through this definition, engagement is identified as part of the teaching, research, and service mission of the university. It allows faculty and staff to incorporate outreach into their current academic work as opposed to adding a fourth responsibility.

At the outset, we also needed to survey the extent of outreach already under way.

An Ad Hoc Committee on University Outreach was formed in 1994 to accomplish this goal. The survey revealed extensive outreach efforts in many colleges across the university. Even more revealing was that when university administration showed an interest in these efforts, faculty and staff were proud of their involvements and wanted to discuss their activities.

As a result of these findings, The President's Council for Outreach and Engagement was established in 1995. Comprised of 32 faculty and staff

from ten colleges and seven support units, the council serves as an umbrella for supporting and developing engagement initiatives. Members meet monthly to promote and chronicle engagement activities.

The council works closely with its partners, OSU CARES and Campus Collaborative—two university-wide initiatives that link faculty and staff with the community in order to make the products of our scholarship useful to those we serve. Through OSU CARES (Community Access to Resources and Educational Services), colleges throughout the university can collaborate with Extension and citizens across the state to address emerging issues that will face Ohioans. OSU CARES focuses on future issues and activates interdisciplinary teams of university professionals to address them.

Campus Collaborative brings together more than 40 university units and several community organizations to address urban issues in the university area neighborhoods. The Collaborative creates a mechanism for building community partnerships to address social, educational, and economic issues. The Collaborative is the clearinghouse for a number of projects ranging from school-to work programs to a community computer center for low-income residents.

Through the efforts of The President's Council for Outreach and Engagement, and its partners OSU CARES and Campus Collaborative, several exciting projects and programs have emerged, including:

Campus Partners, an urban revitalization program that unites business leaders, city officials, schools, neighborhood residents, students, faculty, and staff in efforts that improve the quality of life in the university area. Cooperative projects include neighborhood meetings, improved city services, public safety programs, and home ownership incentives.

Outreach and Engagement Leadership Symposium provides a campus wide forum for examining the role of outreach and engagement in the 21st century university. During our first symposium in 1997, nearly 200 faculty participated in discussions with national education and engagement leaders, including Dr. Richard Foster, Vice President for Programs for the W.K. Kellogg Foundation; and Dr. Mary Lindenstein Walshok, author of *Knowledge Without Boundaries* and Associate Vice Chancellor-Extended Studies and Public Programs, University of California, San Diego.

Outreach and Engagement Database, now under development, will catalog the university's statewide, national, and international outreach/engagement efforts and provide institutional access to our many activities and partnerships.

Ohio Partners and "Making a Difference" Map are new publications highlighting the university's engagement activities. Distributed regularly to faculty, staff, state officials, and the general public, they help create awareness of the university's many outreach and engagement efforts.

Roads Scholars Tours give Ohio State faculty a firsthand look at the ways the university is forging partnerships with business, industry, and the community. Hosted by the president, these statewide tours enable faculty to see how their colleagues are involved in research, teaching, and service that improve the quality of life for all Ohioans.

These and many other initiatives are helping Ohio State move from an institution that merely

reaches out to one that is actively and continuously involved in the life of our communities. Likewise, they provide a structure whereby we can continue to identify community needs and evaluate the impact of our efforts.

Our success, in large part, will derive from our ability to respond to the immense challenges facing higher education in a rapidly changing world. As Richard Foster, vice president of the Kellogg Foundation, noted at Ohio State's Engagement Symposium, this is a defining time for the role of public higher education. "Societies are changing at the speed of light, and universities can't keep up. The answer is partnerships. Outreach will need to become the kind of organizing structure that research has been in the past."

Clearly we must become engaged institutions—not only because we need to have public support, but because the future of our universities must increasingly be one of engagement in public issues and public dialogue. The great land-grant tradition, which has served us so well in agriculture, must be expanded to include all aspects of the university if our institutions of higher education are to remain relevant as we enter the next century.

For Ohio State, meeting this challenge will require that we reexamine the very culture of our campus. We must recognize engagement as a central component of our mission and a priority which has the support of senior leadership. We must continue to challenge the current paradigm, which is focused on research and create an environment where engagement is nurtured and rewarded. Ohio State's new Promotion and Tenure Policy, which acknowledges a diversity of missions, programs, and faculty roles, is putting us on that path.

In the final analysis, the true measure of our success will be if people believe in their hearts and their minds that we are making a difference in their lives. For Ohio State, engagement is at the heart of this effort.

The Pennsylvania State University: *Meeting the Challenges of Engagement*

Penn State, like all land-grant institutions, was created on a foundation of active partnerships between higher education and the agricultural community, government, industry and the public. Ongoing and mutually beneficial engagement of students and their families, the myriad businesses and industries of Pennsylvania, and local, state, and federal governments is critical to the fulfillment of Penn State's mission. Every aspect of the university's long-term strategic planning and budget reallocation is informed by the valuable input received from these constituencies. A recent statewide survey indicated that one in every four Pennsylvanians had participated in a Penn State program within the previous year—a testament to the level of interaction between the institution and its public.

What follows is a sampling of the literally hundreds of partnerships Penn State has established to help improve the economy, agriculture, personal and family development, science and technology, communications, and many other aspects of daily life. No other university in the Commonwealth is engaged is such varied activities that touch virtually every Pennsylvanian. But perhaps more importantly, Penn State is developing partnerships in a way that ensures greater productivity and greater success in its mission of integrating teaching, research and service.

Engagement with Business

Penn State's history of involvement with business and industry across the state—through faculty connections, student internships, trustee appointments, technology transfer programs, and more—has resulted in a tremendous economic impact. Penn State research generates nearly 14,000 Pennsylvania jobs annually. The latest comparative data rank Penn State first among public universities nationally in industry-sponsored research. Including investments from 379 Pennsylvania companies supporting more than 800 projects, Penn State conducted $58.3 million in such research in fiscal 1997.

As one example of this kind of research, Bonney Forge, a manufacturer of precision valves for world markets in Mount Union, Pa., recently had a problem that Penn State helped overcome. The overseas supplier of a certain critical component for its forged steel valves could not keep up with the company's demand. To meet the needs of its customers and stay competitive, it decided to make the component in-house, and required help to take that step in a cost-effective manner. Bonney Forge requested assistance from Penn State, which had the technology applicable to its needs and a wealth of experience at technology transfer. Now the company produces better quality valves at a more competitive price, which produces more sales volume and more jobs.

In Pennsylvania's major food processing industry, small- and medium-sized manufacturers have particular difficulty addressing workforce development needs. To help meet these common needs more efficiently, Penn State established the Pennsylvania Food Manufacturers Training Consortium to offer specialized training and manufacturing technology to more than 500 workers and nearly

two dozen companies to date.

The sharing of military laser cutting technology developed in Penn State's Applied Research Laboratory (ARL), has allowed the Cannondale Bicycle Company to reduce set-up and assembly time for its bikes. First used at the firm's 400-employee Bedford, Pa., plant and now at all of its locations, the new technique allows Cannondale to turn out a customized-style bicycle at a mass production price.

Just a small sampling of the many other products benefitting from Penn State expertise would include optical coatings based on diamond film technology, a highly selective insecticide that could allow great reductions in the use of insecticides in apple orchards, the world's first cartridge-refillable tape applicator, a hay harvester that maximizes hay crop nutritional value, lighter helmets for use by the United States armed forces, longer-lasting water purification filters, and environmentally-friendly tanned and finished leather.

Some of these efforts involve Penn State's PENNTAP (Pennsylvania Technical Assistance Program), which has provided scientific and technological assistance to more than 20,000 businesses and industries throughout Pennsylvania to help improve their competitiveness and strengthen the state's economy. The program has produced more than $100 million in measurable economic benefits, and focuses on helping small businesses that typically do not have the in-house expertise or time to resolve specific technical problems.

Penn State also hosts the Ben Franklin Technology Center, which provides technical and entrepreneurial assistance, as well as industrial research funding, to small and medium-size Pennsylvania companies. Pennsylvania's Ben Franklin Partnership is one of the most successful programs in the country aimed at promoting university-industry research partnerships. Among other efforts, the center is heavily involved with the Pennsylvania Foundrymen's Association, the growing powder metal industry in the north central region of the state, the Pennsylvania Food Manufacturers Training Consortium mentioned earlier, the Pennsylvania Housing Research Center, and the highly successful plastics engineering technology programs at Penn State Erie.

The examples above show that as Pennsylvania's land-grant university, Penn State is more than just a producer of degree holders and academic publications. The university is dedicated to a wide-ranging engagement with businesses—big and small—across the Commonwealth.

Engagement with Students

Penn State in recent years has devoted considerable resources to reorganizing its administrative structure and campus-specific programs to better serve the modern needs of students with fast-track career goals, family and location constraints, and interests in new technologies. One example of Penn State's concentration on the academic needs of the communities where its campuses are based is the recent reorganization of the Commonwealth campuses to allow more degree programs at more locations, making it easier for place-bound students to earn their degrees.

Penn State is taking the offensive in helping students who want to enter the fast-growing information sciences and technology workforce by establishing a new, free-standing School of

Information Sciences and Technology. The school is being developed in response to input from students, as well as from a distinguished panel of corporate representatives that met at University Park seeking ways to meet the shortfall of nearly 360,000 current information technology positions and the more than 1 million new positions that will open within a matter of years. The school is expected to bring higher levels of resources and coordination to the University's programs in management information systems, software engineering, computer science, and related fields. To keep students on the cutting edge of developments in the industry, many courses will be taught by guest instructors from corporate and government settings.

Beyond the needs of the traditional college-aged population, it is widely recognized that four years of college is no longer adequate education for a lifetime. A majority of today's employees will need retraining or additional education later in their careers, thus casting them in the role of nontraditional students who may not be able to pursue their education goals on a full-time basis—or even in typical classroom settings.

Penn State serves the unique needs of such learners through Distance Education programs that encompass one of the largest and most diversified continuing education efforts of any university—annually serving more than 180,000 nontraditional students. The programs include independent learning courses, certificate programs for professional managers, and evening-hour college credit courses.

Engagement with Communities and Others

To stress the importance of engagement with the public, Penn State's Faculty Senate has incorporated a measure of faculty outreach activities in its promotion and tenure review process. Defining outreach as the "generation, transmission, application, preservation, and enhancement of knowledge between the University and external audiences, within the Commonwealth, nationally, and internationally," the Faculty Senate encourages outreach in such forms beyond the typical classroom as noncredit instruction, applied research, technical assistance, demonstration projects, evaluation studies, and policy analysis. Penn State outreach programs serve more than five million people. These efforts are seen by many faculty as a logical extension of their instructional responsibilities—part and parcel of what it means to be a teacher. However, the costs of faculty outreach projects are not covered by any direct state appropriation.

An important undertaking that does receive funds from federal, state, and county appropriations is Penn State Cooperative Extension. Penn State Extension has offices in each of Pennsylvania's sixty-seven counties to serve the educational needs of homeowners, farmers, and agribusinesses. More than a million Pennsylvanians participate annually in short courses, programs, demonstrations, and the PENpages Consumer Information database on the Internet. Moreover, Extension's 4-H youth development programs annually involve 147,000 youths statewide in animal and plant science, engineering, life sciences, citizenship, and leadership skills programs.

Also delivering learning opportunities statewide are the Penn State-owned and operated WPSX-TV and WPSU-FM (affiliates of the Public

Broadcasting Service and National Public Radio, respectively). Together, the stations reach approximately 400,000 households with instructional, public affairs, and cultural educational programming.

Engagement with the University Community

Penn State is in the midst of a five-year strategic plan with six overarching emphases on better service to its constituencies: enhancing academic excellence through greater support of high-quality teaching, scholarship, and research; enriching the educational experience of all Penn State students; building a more considerate and civil community; serving the people of the Commonwealth; developing new sources of income; and reducing costs through improved efficiencies.

The strategic planning process at Penn State involves input from all departments and divisions. Each budgeted unit must cut 1 percent of its budget, which the University Planning Council then reallocates to meet the university's highest priorities.

In the past two academic years, approximately 200 new faculty positions were created as part of this planning and reallocation system. Another 21 faculty positions were produced from shifting faculty with administrative responsibilities to department responsibilities that include more teaching. Efforts to increase the faculty ranks will continue for the next several years.

Furthermore, approximately $550 million worth of capital construction projects are underway across the University—much of which activity is aimed at increasing access to information technologies, expanding the programming possibilities of such key facilities as the renovated Hetzel Union Building/Paul Robeson Cultural Center and the Pattee Library and Paterno Library at University Park campus, and improving the overall physical plant for all users of Penn State facilities. The planning for this involves ongoing public forums for the solicitation of input from members of the community.

Furthermore, faculty, staff, and students from across many fields of study are being brought closer through interdisciplinary initiatives that focus the university's strengths on special needs and opportunities in society. For instance, the Life Sciences Consortium is a collaboration of more than 190 scientists at Penn State that is breaking down the traditional barriers between medicine, engineering, science, heath and human development, agricultural sciences, and the liberal arts. Broad efforts are also being coordinated between the academic colleges to improve the health and social well-being of children, youth, and families; and to strengthen cooperative efforts in materials science, environmental studies, and information science.

Engagement with Alumni

The Penn State Alumni Association, founded in 1870, is the largest organization of its kind, numbering about 140,000 paying members. It serves alumni and friends of the University with its worldwide network of clubs and programs, including homecoming reunions, the Alumni College continuing education series, career planning workshops, scholarships, and the annual Teaching Fellow and Alumni Fellow awards.

The participation of Penn State's alumni in the life of the University is particularly evident in their generosity. Penn

State recently overtook Harvard to become the nation's top-ranked university in the number of alumni donors, according to a report by the Council for Aid to Education. In 1996–97, 66,072 Penn State alumni made gifts to their university. Although comparative data from other institutions are not yet available, in 1997–98, even more alumni—70,101—made gifts to Penn State. These gifts count toward Penn State's largest-ever capital campaign—now underway and intended for the long-term benefit of students and faculty, mainly through increased endowment levels at the university.

Engagement with the Future

A new initiative, The World Campus, launched this year with support from the Alfred P. Sloan Foundation, reflects ambitious distance education goals that bring instruction in some of Penn State's signature courses to users wherever they may be through the Internet and other technologies for undergraduate and graduate degree work, professional certificates, and continuing education credits. It is especially geared toward people who cannot attend classes at a university campus—those already in the workforce who need flexibility in pursuing continuing education and training or want to prepare for career changes, as well as people isolated from higher education in rural areas. Integrating the expertise of renowned faculty members, learner support services, and resources such as Penn State's immense University Libraries system, the World Campus creates a new kind of academic environment where students who are separated from each other by miles or continents can learn together.

In January 1998, the World Campus became a reality when the virtual version of Penn State's renowned course, Introduction to Turfgrass Management, enrolled its first long-distance students. Since then, World Campus courses in noise control engineering, chemical dependency counseling, fundamentals of engineering, business logistics, dietary systems management, geographic information systems, and electrical engineering have already started or been developed for this fall. By the year 2002, more than 300 courses could be offered on-line or on CD-ROM, in combination with such traditional methods as video and audiocassettes and textbooks.

The World Campus is just the latest initiative that harkens back to Penn State's historic land-grant university status. As defined by Congress—and part of Penn State's mission since 1863—that status obligates the university to offer instruction at a cost affordable to people of average means and to disseminate the benefits of learning to the citizenry. As this summary shows, Penn State continues to meet the challenge inherent in every aspect of its engagement with its constituencies—applying the best lessons learned from its distinguished past toward the betterment of the present and future for all.

Portland State University:
A Campus Wide Commitment to Engagement

Portland State University (PSU) has moved beyond outreach and service to a campus wide commitment to engagement. As prescribed by the Kellogg Commission (1998), the institution has "redesigned its teaching, research, extension and service functions to become more sympathetically and productively involved" with the Portland metropolitan community. The change can be traced through critical moments in PSU's institutional maturation. The engagement agenda that characterizes PSU today emerged from an unfocused history with a confusing internal and external image and from a series of long-term reductions in state support for higher education.

History of Portland State University's Approach to Engagement

Prior to the mid-1970s the topic of university-community connections at Portland State University was addressed on the periphery of the institutional agenda. The concept of engagement was that of outreach and service in the form of scattered internships, faculty partnerships for research purposes, departmental initiatives directed to applied research, and the beginnings of graduate degrees in professional areas with interest in building connections with community. By 1974 the term "urban university" was being used to describe the institution, and there was a recognition that this kind of university presented unique scholarly opportunities. Many university activities and ceremonies (presidential inauguration, alumni events) highlighted the role and potential for a "university in the city."

By the late 1970s closer connections in the form of partnerships emerged across the campus. Two examples of those connections were community-based research projects through the Regional Research Institute and the Institute on Aging, and beginning collaborations between the School of Extended Studies, academic departments, and community agencies for continuing education programs. The growth of university-community connections at this time were mainly the result of individual or departmental interest and effort. They lacked both coordination and recognition on a campus-wide level.

By the late 1980s community/university partnerships became a priority on the campus agenda. The urban mission was articulated publicly, and the university took on the responsibility for contributing to the quality of life in the metropolitan community. As Berry (1987) describes it, a community/university partnership is one in which "the concerns of the institution are nearly identical with the concerns of the community." Simultaneous with curriculum reform, budget cuts, changing faculty roles, and streamlining of administrative structures emerged a commitment to such community/university partnerships.

With the commitment came resources and coordination. Partnerships have become an integral part of the teaching and learning process in both undergraduate and graduate programs. Extended Studies, and multiple centers across campus. Consequently, the concept of engagement has been expanded

and extended at Portland State University to truly address the contemporary issues of our community by broadening the scholarly pursuits of faculty and students, by responding to those issues with interdisciplinary solutions, and by viewing the metropolitan community of Portland as an extended campus for learning. Much of the scholarly agenda is set jointly with the community and academic programs and curricula reflect the strengths, needs, and issues of the community. Portland State University has arrived as "part of the community to the extent that the valid self-interests of the university are becoming indistinguishable from the interests of the community" (Saltmarsh, 1998).

Mapping the Geography of Portland State University as an Engaged Institution

This map will establish a foundation for understanding the depth and breadth of PSU's engagement with community and the multiple forms in which it is currently demonstrated. That foundation includes a description of institutional leadership, institutional fit, student characteristics, and faculty demographics. This mapping is essential to an analysis of how and why engagement exists by probing the institutional context with relevance to the forms of engagement.

Leadership at Portland State University

From 1990–1997 PSU was guided by President Judith Ramaley with a commitment to the role of an urban research university and a defining interest in community involvement. The urban mission aligned well with campus reform of general education and with national demands for higher education to "connect the work of the academy to the social, economic, and environmental challenges beyond the campus (Hirsch & Lynton, 1995). The leadership at PSU developed a comprehensive response to those demands while simultaneously creating a vision for the university. Without support or even recognition, many faculty and administrators at PSU were already involved in curricular innovation and in partnerships with community groups and organizations. Their work provided informal direction to the changes that integrated community work with academic curriculum and made community partnerships a university priority.

Institutional Fit of Community Engagement

In 1992 the fit of community engagement with the PSU campus was not well matched. In spite of a tradition of actively promoting education to serve the community and a mission to "enhance the intellectual, social, cultural, and economic qualities of urban life," PSU's notion of scholarship was not congruent with its mission and, in fact, probably "blurred its mandate and sent confusing signals to faculty" (Rice, 1991). There was an unspoken understanding that community involvement was an add-on to the faculty role and that service requirements of the role could more easily be fulfilled by service on a departmental or university committee.

Institutional fit also involves the demographics and assets of the Portland community. PSU is situated physically in downtown Portland, an area unusual in its planned liveableness, its attention to transportation issues, and its involved citizenry. Engagement with university is congruent with Portland's vision, its citizen dynamics, and its

urban lifestyle. Unlike Harkavy's West Philadelphia (1992), Portland's areas of need are not centralized but instead spread over a large metropolitan area.

In Portland numerous nonprofit agencies operate on limited budgets and seek resources through engagement with the university for traditional functions (research, evaluation, public relations, assessment, citizen education, etc.) The city's location in a region that is focused intensely on environmental issues adds an important dimension to the engagement. Portland Public Schools and neighboring districts have a rich tradition of enhanced programs and services using the resources of university students and faculty. Small businesses abound, and economic development for the region has involved diversifying business and industry, and in particular, setting conditions for the success of high tech pursuits. Thus, the demographics, assets and needs of the Portland metropolitan community could best be matched with a wide sweep of engagement in multiple forms and through involvement of multiple academic disciplines.

Student Characteristics

There are 15,000 full-time and part-time students enrolled in classes and programs at PSU. Approximately 4,000 of those are graduate students. In addition, 25,000 students are annually served through credit and non-credit courses through the School of Extended Studies. PSU is a university with multiple student constituencies drawn from the metropolitan area: the traditional 18–22 year old cohort, the considerably older student group, and the in-betweens. Many of the students are older, married and with families, and working full or part-time (80 percent). Such demographics add to the definition of PSU as a commuter campus (90 percent of students commute). PSU's students are already citizens of the Portland community. They remain in their Portland neighborhoods after graduation. They have not traditionally experienced a sense of community while on campus but are often engaged in their own neighborhood community. The student demographics direct and determine the student role in the institution's concept of engagement. It has not been surprising that the PSU student body has embraced the current engagement agenda with enthusiasm, intensity, and emerging leadership.

Faculty Characteristics

There are slightly fewer than 500 full-time faculty at PSU with slightly more than 150 part-time faculty. Many part-time faculty are community partners who bring the wisdom and experience of their business or organization to their on-campus teaching. The average full-time faculty is personally involved in the metropolitan community in a variety of activities or projects related to the arts, environment, criminal justice, human services, health issues, public schools, public safety and urban planning.

For the last five years faculty have struggled with "a changing academic environment, where external demands for productivity and attention to societal problems clashed with what they had grown to value about their professional lives in the academic community" (Ramaley, 1995). Under mandated budget cuts, faculty have attempted to balance survival issues with reflective

interpretation of the university mission. However, approximately 40 percent of all faculty have taught in new curricular arrangements or in community-based courses. For many faculty, the engagement agenda supported their interests and inclinations and they have found great professional satisfaction in their involvement.

Community/University Partnerships: Portraits of Engagement

A significant number of long-term, authentic, and broad partnerships are the ultimate form of engagement sought to effectively blend the goals of community and university, match the campus and neighborhood characteristics, and serve as contexts for the collaborative sharing of resources and meeting of needs. There is a history in higher education and a tendency of academics to "serve" the community by offering resources—student help, faculty expertise, training and classes, and so on. During recent years, that thinking has been adjusted to a mentality of collaboration and a vision of engagement with community. The engagement has taken multiple forms with different loci across the PSU campus. Those forms include community-based teaching and learning activities; research and development efforts; program and curriculum planning; and program implementation and offerings.

Community-based Teaching and Learning Activities

At a time in higher education when service learning was embraced by many campuses, faculty and administrators at PSU thoughtfully rejected the term service and its possible connotations. Their respect for community partners as co-teachers of PSU students directed the use of the term, "community-based teaching and learning" to describe a range of activities. Community is seen as an extended learning environment of the campus and as a source of insights, skills, and attitudinal perspectives to complete and enhance those learned in classrooms on campus. Since 1995 the number of community-based learning courses increased from 8 identified courses to 150 courses in 23 departments in 1998. Those courses originated as traditional disciplinary courses but have been transformed by integration of community work with a direct relation to the academic content. Those courses are now clearly identified in quarterly schedules and as of Winter 1999 will be noted on student transcripts. Another form of community-based learning takes place in senior capstone courses. The capstones are designed as team experiences to address a significant community issue or need. Faculty, students, and community partners work together to design the capstones, to implement them and to assess them. In 1995, four pilot capstones were initiated for development and study. In 1997–98 1000 seniors participated with faculty and community partners in 50 capstones, and 70 are planned for 1998–99 offering.

Research and Development Efforts

A traditional approach for faculty research has been to use community as research samples or contexts for study. Currently a significant number of PSU faculty collaborate with community partners in the planning and design of research projects. Instead of research questions derived from disciplinary knowledge base, their questions emerge from community issues and needs and are supported

by the knowledge base. Many of the community-based learning courses and capstones have conducted such collaborative research studies, and many faculty have engaged with a community partner or a network of community agencies to conduct much needed research. From 1995 to 1998 more than 45 such research projects were documented. In addition, several of the centers and institutes (Regional Research Institute, Institute for Metropolitan Studies, Center for Population Studies) on campus have collaborative research as their mission and focus.

Program and Curriculum Development

Today in 1998, PSU has a rich and growing history of engagement with community to design programs and develop curriculum. Several examples illustrate the breadth and capacity of those partnerships. In 1991 community partners met with faculty and administrators to design program objectives, outline curriculum content, specify practicum experiences, and identify career options for a new undergraduate major called Child & Family Studies. In 1995 a focused approach to planning in the School of Extended Studies brought together the School of Social Work and the Oregon Office for Services to Children and Families to create the Child Welfare Partnership. The Partnership provides training and research services on-site to the staff and family resource providers of the state office.

More recently the College of Urban and Public Affairs and the School of Extended Studies collaborated with the city of Portland, the Office of Neighborhood partnerships, the state housing office and Department of Agriculture, and others to assess needs and make decisions leading to the Oregon Community Development Training Institute, to provide training related to affordable housing and community-based economic development. Partnerships have been the critical context for the design of new programs and the refocusing of existing programs in the School of Extended Studies; that engagement has resulted in a flourish of successful programs that are responsive to external constituencies and meet lifelong learning needs of the community. Those programs also draw on a mix of expertise from faculty and professional practitioners. That same mix of thinking was recently (April 1998) enhanced by the addition of student voices for curriculum development work focused on leadership. Six months of conversations and intensive all-day work sessions attended by faculty, staff, students and community partners resulted in a new curricular offering, a general education cluster, "Leadership for Change" to be offered in fall 1998. The engagement has been strengthened within the campus community as well as with the Portland community.

Program Implementation and Offerings

Development and implementation of a number of undergraduate and graduate programs have recently been planned and carried out in partnerships with the School of Extended Studies. The approach to implementation represents a change in the system of continuing education over the last ten years. From an autonomous unit separate from academic departments, the School of Extended Studies moved to collaboration with those departments and extended the collaboration to community

constituencies. A striking example of that extension is the statewide masters in Business Administration, with campus courses distributed to fifteen sites throughout Oregon. On-site coordinators assist students with class assignments and advising. More than 130 adult students have completed their MBA's since 1988. Similarly a masters' degree in Curriculum and Instruction has been offered in Lincoln City, Salem and Hood River in cooperation with local school districts. A significant portion of the program is designed to match the district priorities, student populations, and teacher issues. The courses are delivered via electronic delivery or by faculty who travel to those communities. The programs also access the expertise of the community for course instruction. Currently, PSU's innovative Freshmen Inquiry courses are offered collaboratively by teaching teams with participation from neighboring school districts and community colleges.

Community Engagement: Accounting for Portland State University's Success

When PSU's engagement with community is viewed in its entirety, that engagement takes a wide range of forms, with multiple categories of community partners, and for broad and diverse purposes. First and foremost, that engagement contributes to the education of PSU's students which is the university's ultimate responsibility to the community. From there, engagement serves the purpose of enhancing the quality of life in the community. PSU is part of that community, its faculty and students are its citizens, so they participate in the community as part of their everyday lives. That participation begins to explain the success of PSU's community engagement. Other questions probe the reasons for focus and extent of engagement; and their answers contribute to the explanations for success.

With whom does PSU engage?

Throughout the campus, there is evidence of engagement with community individuals, organizations and agencies, institutions, and networks of community groups. For other reporting purposes, PSU's community partners have been categorized into the following groups: businesses (Intel, Saturn, real estate agencies, restaurants); government (city, county, state, regional, and federal agencies, departments and offices); educational institutions (public schools, community colleges, museums and zoo); nonprofit agencies and organizations (refugee centers, homeless shelters, aids hospices, etc.); social service agencies (Healthy Start, Commission on Aging, Adult and Family Services, etc.). That range of community partners (See Appendices A & B) has eased the match with a similarly wide range of disciplinary departments, faculty interests, and student needs for skills and insights.

How is the engagement agenda funded?

A variety of funding sources have been tapped to support the engagement agenda: grants, foundation gifts, collaborative resources from multiple partners. The success of engagement with community has been an impetus for significant national recognition and awards. For example, money from the Atlantic Foundations supported partnership work in 8 departments for the development of significant long-term partnerships as contexts for ongoing capstone courses. Combined

funding from Kellogg and Pew Charitable Trust further extended those departmental efforts to develop community partnerships and capstone courses. The Institute for Nonprofit Management in the School of Urban and Public Affairs was recently awarded a grant to further engagement with nonprofit agencies, while the Corporation for National Service has assured five years of funding (renewable for one more year) for the collaborative development of course work and experiences directed to faculty involvement and student leadership in community. In some cases such as the Community Development Training Institute, many of the community partners contributed funds to the establishment of the Institute, and school districts have subsidized the collaborative programs for their teachers. There is also a commitment to funding for such partnership activities as Capstone and community-based learning courses on the part of the institution.

How are University demands and interests balanced with the engagement agenda?

In many of the community-based teaching and learning activities the explicit connection between the academic content and the community work assures fulfillment of teaching responsibilities and student learning outcomes. In much of the collaborative planning and implementation of programs, engagement with community enhances the university capacity to meet the learning and training needs of its students who are also community citizens. In addition to collaborative research projects, much of faculty work with community partners is being seen as scholarly work and documented as such. The representation of the engagement agenda in both university and departmental missions serves as support for faculty and student involvement in engagement activities.

What motivates and rewards faculty involvement in the engagement agenda?

For many faculty, careful attention to the scholarship connected to engagement through partnership activities emerged when in 1995 revised promotion and tenure guidelines promised recognition and reward for faculty contributions to community engagement. Still, those guidelines will provide more assurance to faculty when they observe "successful cases" of colleagues who are rewarded for those community contributions. For those faculty for whom tenure and promotion is not an issue, work with community partnerships is providing opportunities to work on projects of intense interest, to revitalize teaching and research, and address the kind of societal issues that may have attracted faculty to the profession in the first place. Faculty describe the collegiality connected to community engagement and new awareness of community needs and resources (Driscoll, Gelmon, Holland, & Kerrigan, 1998). A recent interview study of newly hired faculty found that 63 percent of those faculty were attracted by PSU's engagement agenda and the opportunity to work on those issues.

How has communily engagement affected the institution?

When campus offices were surveyed to determine the impact of community engagement, there were predictable outcomes and surprises. Needless to say, student affairs and advising centers were knowledgeable and actively assisting students

with involvement in community based learning activities. University admissions and recruitment reported significant impact of engagement to the extent that student engagement with community was the major distinction between PSU and other institutions. Students and their families were attracted by the engagement possibilities. The Alumni Office reported that graduates were expressing a new pride in PSU related to its visible image through community engagement.

What kind of structures have supported the engagement agenda?

Many of the institutes and centers on campus provide the infrastructure to support specific community engagement such as those in which the School of Extended Studies is involved. For most of the community-based teaching and learning activities however, there was a need for an infrastructure to support and coordinate faculty efforts. The Center for Academic Excellence was established in 1995 with a Director of Community/University Partnerships who works with the Director of Teaching and Learning Excellence to provide assistance and support to faculty engaged in curricular innovations and community partnership activities. The Center has a database of community partners, resources and a library of topics related to engagement within the campus and with community partners, and a schedule of faculty development seminars, workshops, and classes to support faculty efforts. Much of faculty recruitment for engagement activities originates in the Center, as well as technical assistance for community based teaching and learning. The Center changed the landscape of faculty involvement in the engagement agenda from one of isolation with little acknowledgment to one of coordination with many opportunities for recognition.

Summary

Through intensive internal and external discussions, the Portland State University campus has strongly adopted a clearly articulated mission as an urban research university and built a detailed strategic plan on the foundation of that mission. That plan and mission have guided the transformational events since 1990 to an institution characterized by engagement through community/university partnerships. The following qualities define PSU in its urban university role:

- Teaching and learning, research, and outreach are linked to community needs and issues,
- The metropolitan community is an extended campus for learning,
- The scholarly agenda is set jointly with the community,
- Academic programs and curricula reflect the metropolitan community,
- Networks of university and community partners support student access and success, and
- Community partners have become an integral part of the campus community.

The Kellogg Commission reported (1998) that Americans actually know very little about American higher education. That lack of knowledge no longer describes the relationship between Portland State University and the citizens of its surrounding community. Those residents do understand its structure and purpose, and have begun to explore how it functions and how it is financed. Their involvement in curriculum and program planning or in collaborative program implementation has demystified the university. With that new awareness is a

documented change in perception of Portland State University. PSU is perceived as a dynamic and engaged partner by the community and that perception is a reality!

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Rutgers the State University of New Jersey: *An Abiding Commitment to Engagement*

Established by Royal charter in 1766 as Queen's College and the eighth oldest institution of higher learning in the nation, Rutgers, the State University of New Jersey, is unique in American higher education as the only Colonial college that went on to become both a land-grant institution and a state university. It is also the youngest state university in the nation. Its special position in the academy is due in part to the university's deep and abiding commitment to engagement with its constituencies in every sphere.

Along with one of the longest and most distinguished histories in American higher education, Rutgers has developed as a major institution on every scale. With 48,000 students, a renowned professorate, an annual budget in excess of $1.1 billion, and 29 degree-granting units on three campuses spanning 90 miles in the heart of the corridor between Washington, D.C., and Boston, Rutgers is among the largest, most diverse, and most visible of the nation's state universities. A member of the prestigious Association of American Universities (AAU), Rutgers is dedicated to excellence in each of the three areas of its institutional mission: teaching and learning, basic and applied research, and community and public service and outreach.

Rutgers' accomplishments over the years attest to the longevity of its efforts to improve the quality of life, benefit human health, and support the economy of its home state, surrounding region, and nation as a whole. Rutgers is home to the nation's oldest university-based department of environmental science, was a pioneer in mosquito control research, and annually contributes to more than $2 billion in economic activity for New Jersey through valuable contributions to such vital and diverse state industries as pharmaceuticals and tourism. A veteran practitioner of the well-established strategies of the land-grant model of teaching, research and extension, Rutgers has worked to assure the relevance of its contributions through research and teaching to the needs of its constituent groups through the process of engagement.

Following the ideal of the Wisconsin experiment, Rutgers is engaged with all levels of society: state and local governments, NGOs, corporations, municipalities, and individuals. Rutgers faculty are policymakers, planners, investigators, pollsters, advisers, and communitarians tackling the challenges and problems that shape New Jersey's future: health care, education, the environment, workforce, technological innovation, lifelong learning, diversity, and economic development. In turn, these activities are funded from a variety of sources including all levels of government, corporate contracts, partnerships, private donations, university funds, and volunteered services.

Rutgers' commitment to institutional engagement is embodied in the university's strategic planning process. Four criteria guide the evaluation and allocation of resources to strategic planning initiatives: excellence, centrality to mission, diversity, and, significantly, *responsiveness to emerging societal needs.* It is this commitment to respond to the larger challenges confronting humanity that is the hallmark of the

land-grant tradition.

Like other land-grant universities, Rutgers has grappled with organizational issues that have an impact upon fruitful engagement. These include the delivery of service, faculty rewards, and resources: human, physical, and financial. While centers, bureaus, institutes, and academic departments have traditionally provided the essential locus or origin of outreach activities, our experience leads us to believe that rapidly emerging societal needs may better be addressed by alternative structures such as the flexible-team approach described below, especially as interdisciplinary approaches to the solution of societal challenges are becoming the norm.

Faculty reward structures are also critical to successful engagement. At Rutgers, this is being addressed by dedicating a growing amount of faculty compensation through the allocation of merit awards. The awards are determined largely by the faculty themselves with sufficient flexibility to allow academic units to determine their own balance of teaching, research, and service that is most appropriate to the mission of their unit and the individual strengths of the faculty. Although scholarship continues to be heavily weighted in tenure decisions, Rutgers has moved in recent years to allow increasing flexibility for other criteria to be considered in promotions subsequent to tenure, and for their assessment during periodic post-tenure reviews.

In terms of resources, greater reliance upon information technology for outreach requires a significant capital investment and identification of funds for on-going maintenance. The magnitude of this investment cannot be underestimated. Rutgers RUNet 2000 project, which will provide the voice, video, and data infrastructure to support and enhance its external engagement, is a $100 million project to link its three campuses across the state. In addition, much of the engagement that occurs today is related to research and development efforts to sustain or increase economic prosperity in high-technology areas (see environmental and pharmaceutical profiles below). Here training grants and post-doctoral appointments are important components of successful efforts.

In the interests of space, this profile will reference some specific examples of Rutgers' engagement in four diverse areas of our activity—education, health care, urban revitalization, and environmental and natural resources—in providing answers to the Commission's six questions concerning our experiences with institutional engagement. For context, however, it is important to remember that, due to the extraordinary size, scope, and level of activity at Rutgers, virtually every segment of society is engaged by the university's activities in one way or another.

Education

Rutgers' Graduate School of Education (GSE) works to inform and improve educational practice through the discovery and application of knowledge, training educational researchers, preparing educational professionals, and constructively engaging educational institutions in New Jersey. With more than 1,500 students and 55 faculty members, the school offers master's, specialist, and doctoral degrees in education. A wide-ranging service component complements nationally recognized instructional and research programs at the GSE, which has been

recognized as one of the nation's best schools of education.

Through the wide variety of its programming, engagement on the part of the GSE involves students of every age, as well as parents, teachers, educators, policy makers, government officials, and members of business and industry. The service mission of the GSE is supported through a combination of funding sources including Rutgers resources, fees charged to those attending GSE educational events, extramural grants and contracts from local, state and federal government, business and industry, corporations and foundations, and private philanthropy. In terms of time resources, GSE assigns each faculty member a percentage of workload to conduct service and outreach, including efforts directed to the general public (e.g., providing *pro bono* consultation to schools) and to the profession (e.g., editorships of journals). Additional faculty time is supported through grants and contracts.

Response to community demands is essential to the GSE's ability to meet its mission of informing and improving educational practice. It is critically important that GSE faculty test their theories in real classrooms, so that theory informs practice and practice, in turn, informs theory. Decisions about faculty promotions and salary merit increases reflect performance in service, research, and teaching, the three components of the mission. This strategy assures faculty involvement and provides incentives and rewards.

With regard to the impact and quality of GSE achievements in research, teaching, and service, a variety of different performance indicators can assure accountability and measure success in meaningful terms. Among those used in the preparation of a recent GSE accountability report were research publications, extramural grants and contracts, credit hour production, and number of enrolled students, all calculated per faculty member; the number of New Jersey school districts and counties served by GSE programs, and an evaluation of student satisfaction. Other performance indicators include the use of national ratings (e.g., the GSE was ranked 30th nationally among all schools of education and 20th nationally among public AAU research universities) and the awards and honors garnered by faculty members.

There are many examples of excellent GSE programs that combine research, service, and teaching and reflect the spirit of institutional engagement that will shape our future directions. These include the Rutgers-New Brunswick Professional Development School, which involves the New Brunswick Public School District and corporate, foundation, and governmental partners including Bell Atlantic, Johnson & Johnson, Microsoft, the Spencer Foundation, the MacArthur Foundation and the National Education Association. The School is a K–8 public elementary school in one of New Jersey's urban districts. There are four goals for the school: optimal learning for each student, professional development for experienced school faculty, clinical preparation for new teachers, and original research leading to the improvement of practice, with distance learning and telecommunication technologies included. Benefits for the district include new curricula and professional development for teachers in mathematics, literacy, science, world languages, technology, special education, and conflict resolution. For

Rutgers, benefits include collaborative research, staff and site for pre-service teacher education, outreach and inservice systems, and the opportunity to make new discoveries.

The New Jersey Statewide Systemic Initiative (SSI) is an exemplary partnership led by Rutgers that comprises the State's Department of Education, K–12 school districts, NGOs, the business community, and higher education. The goal of the partnership is the achievement of excellence in mathematics, science, and technology education within New Jersey's schools. With $10 million in federal funding through the NSF, SSI combines the best thinking on educational reform by leaders in education, business, government, mathematics, and the sciences toward the goal of educating students not only to attain higher standards, but also to help them realize the application of mathematical and scientific concepts in daily life.

Health Care

Widely known as one of the most selective and competitive programs of pharmacy offered by the 80 pharmacy schools in the nation, Rutgers' College of Pharmacy was founded in 1892 and incorporated into the university in 1927. The college currently offers a bachelor of science curriculum and a six-year professional Doctor of Pharmacy (Pharm. D.) program. About 1,000 Rutgers students take courses with the college's more than 50 full-time equivalent faculty. In addition to maintaining the highest quality in its research (Rutgers ranked seventh among the 80 pharmacy schools in NIH funding for FY97) and instructional programming, one of the college's goals is sustaining and enhancing its outreach and external program activities. These are conducted in areas including continuous professional education and the acquisition, development and maintenance of clinical and related experiential teaching sites in hospitals, clinics, community pharmacies, managed care agencies, the pharmaceutical and health care industries, government, and other areas.

During the past 10 to 20 years, College of Pharmacy engagement has involved such groups as hospitals throughout New Jersey (pharmacists, administrative staff, other health care practitioners and the patients they serve), pharmacists working in community settings (independent stores, as well as those owned by chains; nursing homes, health clinics, HMO's, hospitals, and home health care agencies), and the research-based pharmaceutical industry in New Jersey (with pharmacists and scientists working in such areas as drug development, research, marketing, drug information, and regulatory affairs). Also, the college has engaged with governmental agencies at both federal and state levels, including the State Department of Health and Senior Services, the U.S. Pharmacopeia, and the National Institutes of Health.

Engagement is funded through the university's regular instructional and research budget, through extramural grants and contracts, and through partnerships that involve shared funding between the university and external agencies in truly synergistic relationships. College of Pharmacy faculty try to incorporate these activities as part of their teaching and scholarship in ways that enrich these activities.

Response to community needs as identified through outreach activities and partnerships help shape the interaction

between teaching, research and service activities at the college. Promotion and tenure decisions, as well as those relating to merit-based salary increases, take all these elements into account. Accountability and assessments of the success of outcomes derive from the formal evaluation of all programmatic activities.

Collaborative projects with industry exist in almost all areas of the college. Both research and training programs exist in collaboration with the pharmaceutical industry. Collaborative research with the chemical and biotechnology industries is ongoing. Collaborative, experience-based training programs responsive to the needs of the college's constituent groups are essential. These include both externship and postdoctoral training programs (residencies or fellowships). In fact, the college's collaborative post-Pharm. D. fellowship programs with the pharmaceutical industry are the most extensive and sought-after in the nation. These fellowship programs involve the traditional pharmaceutical industry in New Jersey, as well as the managed care industry and hospitals. The college's clinical-level externship programs feature shared faculty arrangements with the state's major hospitals. Many collaborations also involve the University of Medicine and Dentistry of New Jersey. One example of the effectiveness of engagement by the college is its service to the State Department of Health and Senior Services in the design and management of the generic drug formulary, which saves the state millions of dollars.

Urban Revitalization

Rutgers is actively engaged with the enhancement of the quality of life within New Jersey's post-industrial urban environments. Through the Council for Higher Education in Newark (CHEN), Rutgers' Newark campus works with the New Jersey Institute of Technology, the University of Medicine and Dentistry, and Essex County College in a concerted effort to improve the lives of the residents of Newark, New Jersey's largest city, through city planning and physical renovation in the central ward. A major initiative is the University Heights Science Park, which includes a small business incubator, a $60 million Center for Public Health, a day-care center, a science and technology-based high school, an information-technology incubator, and commercial space for biomaterials and medical device companies.

Another major initiative to improve urban life is the Citizenship and Service Education program (CASE). CASE is built on a philosophy of active learning and a belief that citizenship cannot be learned from books but must be learned by doing. Through a combination of classroom instruction and service-learning placements in a variety of academic subjects (approximately 70 courses each year), each CASE student engages in 40 hours of community service experience. In 1995–96, over 225 community-based partnerships benefitted with over 2,000 students enrolling and providing over 125,000 hours of volunteer time. The program is so successful it has been expanded to include an international dimension as well.

Environmental and Natural Resources

Some of Rutgers' best-known successes, including the Nobel Prize winning discovery of streptomycin, were accomplished at Cook College, the land-grant college of Rutgers and the

university's professional school of food, agricultural, marine, and environmental sciences. One of the nation's most distinguished colleges of its type and home of the nation's third-oldest agricultural experiment station, Cook is a leading exemplar of the application of the land-grant concept with a broad and distinguished record of engagement with its constituencies. Due to questions of scale and to provide unique aspects on the question of institutional engagement, this portion of the Rutgers profile will focus principally on the New Jersey EcoComplex, an environmental research and education facility in Burlington County in the southern part of the state, phytoremediation, and the work of the Institute of Marine and Coastal Sciences.

As part of the land-grant tradition, Cook College has always worked closely with clientele groups in agriculture. As needs have changed over time, the emphasis has begun to shift toward environmental concerns. While it is fairly easy to identify the farmer, it is much more difficult to identify specific points of contact within the environmental industry. The EcoComplex was established in 1996 to promote growth in the field of environmental technology by providing services to businesses that would invest in the cleanup of contaminated sites, pollution prevention technologies, and more efficient ways to recycle and dispose of solid waste. It has identified the entrepreneur and small business person, as well as the State Department of Environmental Protection, as its clientele. The EcoComplex also focuses on educational programming through its EcoLab, which works to stimulate inner city students' interest in science and education. EcoComplex engagement activities are supported by a combination of funds from state and county governments and grants.

In a truly innovative approach to dealing with radioactive contamination, a Rutgers plant biologist developed the technique of phytoremediation, whereby a metal-accumulating mustard plant is cultivated on contaminated soil and then disposed of, thus removing the contaminant from the ground. This technology has been introduced into fields around Chernobyl, Sheffield in the U.K., Trenton and Jersey City in New Jersey. Not only has the technology the potential to improve the lives of thousands of people living in affected areas, it has also led to economic development through a Princeton-based company that exploits the technology on a commercial basis.

Rutgers' Institute of Marine and Coastal Sciences (IMCS) was founded in 1989 to conduct basic and applied research needed to understand and sustain the state's coastal estuaries and wetlands, foster the development of New Jersey's marine industries, and train graduate and undergraduate students in marine sciences. IMCS faculty and staff engage with students and a broad community of interest groups including local elected officials, state and federal legislators, county planning agencies, environmental interest groups, resource management agencies at all levels of government, the pre-college education community, members of the press, private foundations, and industry active in such diverse areas as shipping, tourism, fishing, energy, pharmaceuticals, and electronics. Current areas of IMCS engagement are dredged material management, fisheries management, shoreline protection, estuarine and coastal management,

aquaculture, and pre-college science education. Funding is provided by federal agencies, a regional authority, state agencies, private industry, and foundations.

Responsiveness to community needs and demands helps both the EcoComplex and IMCS shape their educational and research programs. The EcoComplex is an example of the complementarity between teaching, research and service on the one hand and responding to community demands on the other to create a positive force. The functions all blend together such that education, research and outreach components provide informed feedback in the environmental areas between industry needs, research findings, societal benefits, and students. This environmental application of the land-grant model ensures that the needs of the community inform the research agenda which, in turn, serves the environmental community as well as providing real world classroom opportunities for students.

IMCS has emphasized a "science to management" approach for many of its community- based programs. This model supports informed decision-making by ensuring that management of common property resources is grounded in good science. In addition, both the EcoComplex and IMCS maintain active dialogue with community stakeholders and involve them as partners in science programs. By incorporating this element into the design of these programs, the units foster integration of the university mission with community needs. Ideally, the results of the educational experiences these units provide will help shape community input on future projects.

For faculty involvement, incentives and rewards, the director of the EcoComplex believes it is important for people to feel they are part of a larger entity—be it a team or a community—and to share in the larger group's success. Participation in decision making and in the process of evaluating progress are also important at the EcoComplex. The IMCS has found that traditional granting agencies increasingly require outreach or community components in research programs, so faculty actively seek participation of IMCS outreach staff in their projects. Strong working relationships have evolved from this partnership leading to a greater willingness on the part of faculty to devote time to community interests. IMCS staff and faculty also contribute their time in support of community programs and activities as part of their service commitment.

In terms of the EcoComplex experience to date, accountability and the measurement of outcomes for both institutions and communities are tied to the notion of success as defined by increased economic development; new business development and job creation on the one hand, and grant dollars received and publications written on the other. Feedback from clientele and comments from people working on EcoComplex projects are also important ways for the EcoComplex to determine success. This input helps the complex director make adjustments in project funding and team membership. For the IMCS, each of the community-oriented programs conducted or managed by the institute includes a formal assessment process. Feedback from stakeholders is then used to ensure responsiveness to local needs, improve future delivery of services, and provide performance criteria to measure success.

A good example of how these various elements come together in a useful example of engagement is provided by a new IMCS community-based program. The Long Term Ecosystem Observatory (LEO-15) located on the inner continental shelf near the Rutgers University Marine Field Station has been designated as a national littoral laboratory by the federal government. It serves as the focus of major, interdisciplinary research efforts on the physical and biological processes governing change and stability in the coastal ocean. IMCS staff have capitalized on this research capability to enrich science education in Ocean County and throughout New Jersey.

In response to the new state science standards that place an emphasis on environmental education, IMCS developed programs to immerse educators in the science programs underway at LEO-15 and to provide students with access to environmental information collected at the observatory. From these efforts, new classroom activities and supplementary curricula have been developed to enhance teaching of basic skills and problem-solving skills among our youth. In addition, efforts are underway to link the real-time environmental information available via LEO-15 to resource management agencies and the fishing industry. Research priorities and information needs are identified through interactions with the user community.

Some thoughts on structures for engagement

The need for flexibility is perhaps the primary characteristic of any successful infrastructure for engagement. For a given problem, it may be that a special, interdisciplinary team needs to be created to address it, then be allowed to go out of existence when its work is done. The traditional reliance of the higher education community on such structures as departments and centers with long life spans may not be the best pattern to use in meeting future engagement challenges. Since we will define the communities we serve in many different ways, and since the structure of those communities is always changing, it is important that the design for engagement within universities be equally fluid. While obviously important for other purposes, discipline-based departments are generally not sufficiently broadly based so as to provide the cross-disciplinary input that is often prerequisites to successful engagement activities. Food for further thought may be provided by the notion that it may not be necessary for each member of the university to address all components of the trifold mission of teaching, research and service. It may be possible for higher education to meet these needs by effectively putting together teams that include members focusing on one or more of these objectives so that the team as a whole could be said to accomplish teaching, research and service.

Clearly, society is looking for more than a classroom experience from higher education. We have told citizens repeatedly that they should expect us to be contributors to the quality of life within our communities. Now we need to quantify that contribution as well. Our experiences at Rutgers have shown that engagement results in the advancement of the metrics normally used in universities to measure success, such as graduation rate, quality of incoming students, rate of employment after graduation, faculty recruiting and retention, institutional name recognition, legislative support, etc. It

may also be useful to look at some short-term and long-term aspects of the related concepts of engagement and accountability. In such activities as business, politics and many other endeavors there are certain bottom lines that are immediately (and at times harshly) visible: a business may flourish or a politician's fortunes wane. However, higher education has a longer-term impact not easy to calculate in the short term. If universities were to suddenly cease all but their educational activities, society as a whole would not see the effects of a lack of new ideas and new technologies for some time. This absence of immediate impact is a problem for us. How do we convince a society that is more focused on today that we are important and necessary for its very survival tomorrow? Only by being flexible and changing rapidly through such new strategies as developing task-specific teams can we educate our communities and show them how we are engaging with them and addressing their needs. A proactive agenda for institutional engagement will help position higher education for its leadership role in the coming century.

Salish Kootenai College and the Flathead Indian Reservation: *A Native American Engagement Story*

The College shares the tribal world view. Everything and every one in the world are connected. Everything and every one in the world deserves respect. Whatever we can do to sustain nature, to strengthen culture and to help Indian people is our work.

—Gerald Slater,
Vice President
Speech to Faculty

History as Context

The principal characteristics of Indian life in Bicentennial America were poverty, brevity, and illiteracy. Indian tribes ranked last in every government measure of employment, income, health, life expectancy, and educational attainment. The data were shocking:

- Indian unemployment on reservations averaged 50 percent, with some reservations reporting an 80 percent unemployment rate.
- The average Indian income of $1,500 was about 25 percent of the national average.
- Indians led the nation in health problems: hepatitis, tuberculosis, alcoholism, suicides, accidental deaths, heart disease, and respiratory infections.
- The Indian infant mortality rate was 50 percent higher than the national average.
- Indians had an average life span of 44 years compared to 65 years for all Americans.
- Less than 20 percent of all Indian adults completed high school.
- Only 3 percent of Indians who enrolled in college received a degree.
- Only 1 percent of Indian College graduates earned a graduate degree.
- In 1976, Montana colleges and universities conferred degrees on 5,232 graduates. 80 were Indian (23 associate degrees; 55 bachelor's degrees; 2 master's degrees; 0 doctoral degrees; and 0 first professional degrees).
- Two research studies reported that only 40 Indians from the Flathead Reservation earned college degrees from 1935 to 1976.

New Tribal educational and political leaders, believed that both the Indian people on the Flathead Reservation and the Tribe as a whole would be better served, their lives improved, and the Tribe strengthened, if a tribal college were created. The retention rate of Indian students in public and private colleges through the sixties and up to 1976 was horrendous. The Tribe, due to the Indian Self-Determination Act, needed Indian people with college degrees in a variety of areas. They also needed trained specialists and technicians in many areas of their economic development plan. Indian professionals were not available to fill these roles.

Salish Kootenai College was established by the Tribal Council in 1976. It appointed a Board of Directors with a full charter of powers to carry out the development and operation of the College. The Confederated Salish and Kootenai Tribes had little money for College development, but offered political support and the cooperation of tribal departments. The college began with no land, no budget, no classrooms, no faculty, and no library. However the new College had an advantage over existing public and private colleges and universities; it promised to serve the needs, and develop the talents of Indian people on the Reservation. That promise made all the difference.

The College began to gather resources to create instructional and support

programs. It had the simple idea that Indian people and Indian organizations knew the degree and certificate programs that they wanted. In addition, it decided to ask them. In the first ten years, the College completed three educational need assessments, and the data from the surveys indicated the degrees and certificates that the College would offer.

The College administrator and the board of trustees also realized that the College mission and goals should reflect tribal aspirations and serve as a guide for administrators, faculty, staff, and students. With few resources, the College would have to serve individual Indian and tribal needs or it could not survive.

The mission of Salish Kootenai College must be to serve the Tribes and Indian people. We must teach in new ways that will help every student to be proud of being Indian and to graduate. We must help the Tribes with research and education so that Indian people will have a better life. We must keep our culture alive.

—Karen Fenton
Board Chair, 1978

Mission and Objectives

The initial mission and objectives included specific language to engage the reservation community: "The College is committed to meet the needs of the reservation community, tribal members, and tribal programs, and is dedicated to helping promote pride in each tribal member's Salish and Kootenai heritage. Salish Kootenai Community College is an open door comprehensive college with curriculum and programs designed to meet the special needs of Salish and Kootenai Tribes.

The College is delegated to meet four broadly interrelated goals that arise from the philosophy of tribal self determination with a major purpose of serving present and future development needs of the Salish and Kootenai Tribes, their communities; and their people." These goals follows:

1. To provide the Salish and Kootenai Tribes with the educational resources to train their people to meet the development needs of the Tribes and the needs of the tribal communities.

2. To provide development and training in Salish and Kootenai culture. The College recognizes that, if a culture is going to be maintained, it must do it through its education system. The College devotes research and study to the Salish and Kootenai languages and culture in order to encourage its preservation and practice among the Salish and Kootenai, and a wider understanding of it among others.

3. To provide programs that will improve the academic and social development of students. The programs will emphasize academic quality, and will be made accessible to potential reservation students by way of satellite centers and an open admission policy.

4. To assist with the community development needs of the reservation and its community.

The brief mission and objectives statement mentions 'tribe', "Salish", and "Kootenai" (7 times), "Community" (5 times), "need" (five times), "culture/heritage" (4 times) and "reservations" (3 times). In 21 years, only the scope of the mission statement, with minor editing to improve clarity, has changed. The statement endures as a model for the continuous engagement of the College and the Tribes.

I am proud that I represent Salish Kootenai College, the best Tribal College in America.

—Pat Williams, 1990
U.S. House of Representatives

Community Engagement and Institutional Vitality

Over the past 15 years, the College received about half the annual per student funding from the federal government that comparable public colleges received from the state of Montana. Faculty and administrators were encouraged to make up the deficit by increasing Indian enrollment through continuing education, and by providing program evaluations and research studies to tribal departments. Both institutions benefited. The CS&K Tribes received cost effective and tailored services, and the College gained Indian students and income from contracts. Over time, this symbiotic relationship built trust between the Tribes and the College. Today, most business between the College ad tribal departments is negotiated by informal verbal agreements.

Tribal members perceive the College as a positive and welcoming place. The College supports the Reservation by making contributions of money, talent, and sweat to a variety of community interests. Highlights include the following:

You will like Salish Kootenai College. You can be an Indian here.

—Shandine Pete
Student Council President
Speech at New Student Orientation, 1997

Education

In 1997–98, the College provided scholarships, or reduced tuition to every student who applied for assistance.

Proactive support services (study groups, counseling for every missed class, tutors and faculty attention to each student) reduced the SKC Indian student dropout rate to 8 percent, compared to 70 percent at public and private colleges.

Matching tribal educational needs with career employment forecasts allowed the College to create three bachelor's degrees, sixteen associate degrees, and nine certificates of completion programs of study.

Regionally (and in some cases professionally) accredited programs, low dropout rates, effective teaching, and a campus which celebrates Indian culture convinced Indian students from 53 tribes, 13 states, and 2 Canadian Provinces to enroll at SKC in 1997.

Since 1978, more than 900 Indian students graduated from SKC; 601 earned associate degrees; 73 earned bachelor's degrees; and 249 received certificates of completion.

Since 1978, more than 2,000 Indian students received adult basic education instruction, 524 Indian students earned a GED certificate through the State of Montana; and 56 Indian adults learned to read.

The College sponsors programs in the reservation schools: tutoring, career days, Upward Bound summer campus, volunteers for special projects, and cultural activities.

The College is converting degree programs for Internet-based delivery to more than 450 Indian reservations, tribal schools, and Indian centers not currently served by a tribal college.

The College helped me out of a nightmare. I was a physically abused single parent of two children. I was on welfare and had no confidence in myself. I enrolled in one Human Services course and the teacher helped me to solve problems and build my self-esteem. I went on to earn an associate and bachelor's degrees. Now I have a good

job and I help other women to solve problems and believe in themselves.

—Arlene Savage, 1992
SKC Human Service Alumni

Social Services

Jo Ann Dixon, Human Services Instructor, founded the first family shelter on the Flathead Reservation.

Human Service student interns work in 24 tribal, state, and county agencies.

Human Service faculty secured grants to make all SKC facilities wheelchair accessible, to develop a wheelchair accessible student transportation system on the Reservation, and to improve curriculum and instruction.

While I lay outside the operating room, a Salish Kootenai College student nurse checked my chart and refused to administer the medication ordered by my physician. My doctor was angry at being corrected, but the nurse was right. She saved my life.

—Madgie Hunt, 1992
Missoula, MT

Health

The College operates an on-campus Indian Health Service Dental Clinic which serves the Flathead Reservation.

Dental Assisting Student interns work with a dozen area dentists and clinics.

Dental Health Week brings hundreds of people to the campus for free examinations and educational programs.

Dental faculty and students visit reservation schools with educational activities to promote better dental health.

The Indian Registered Nursing Program offers both associate degree and bachelor's degree options.

Student nurses provided services to five area reservation health screenings, blood drives, and other community outreach programs.

The Nursing Department conducts annual reservation heath screenings, blood drives, and other community outreach programs.

The Nursing Class of 1998 led the State of Montana in passing NCLEX, the professional examination of admission to practice.

The College is a center for the study of Salish Culture. It helps to preserve our language, culture, and history. It teaches the young that Salish Culture is valuable and important; and it honors our elders for keeping Salish Culture alive in spite of suffering poverty and prejudice for living as Indians.

—Johnny Arlee, 1998
Salish Culture Leader

Culture

The College offers 26 Native American Studies courses, including Beading, Indian law, Porcupine Quill work, History of Federal Indian Policy, Tribal uses of Wild Plants, and Native Economics.

The College offers three courses in Salish Language, three courses in Kootenai Language, and other language courses in Cree, Lakota, Blackfeet, and Northern Cheyenne.

Internet courses in Salish and Kootenai language are being developed.

College employees participate in many cultural activities: Pow Wows, Cultural Encampment, stick games, sweats, singing, and drumming.

Salish and Kootenai cultural relevance is part of each course taught.

The College writes grants for the culture committees, provides facilities for cultural activities, and donates money for the annual Pow Wows. College employees also serve on culture committees, build and repair Pow Wow facilities, and maintain cultural sites.

The College sponsors special projects to identify, restore, maintain, and celebrate tribal language, culture, arts, and history. These projects require

cooperation across many academic disciplines with many reservation agencies.

All SKC Students are required to complete six credits in Native American Studies to earn a degree or certificate.

I got motivated after completing a course at the SKC Business Development Center. It started me thinking that my husband and I could open a restaurant if we really got serious. The Small Business Assistance Center was really helpful.

—Charmel Gillin, Co-Owner, Time Out Restaurant, 1996

Economic Development

Since 1976, the College conducted nine economic development studies for the Confederated Salish and Kootenai Tribes.

The SKC Business Development Center offered advice and service to 380 clients, and helped to start or expand 50 Indian small businesses on the Flathead Reservation.

The Continuing Education Department created three welfare to work programs, which now serve as national models of excellence for other Indian tribes.

Annual voter registration drives registered hundreds of new Indian voters. Recently, two Indians were elected to Reservation public school boards.

The College is one of the founders of the national organization of American Indian Business Leaders.

It is presently leading the effort to establish a revolving loan fund to support tribal small business development.

The Corps of Engineers would dam a garden hose!

—Bearhead Swaney, Tribal Chair, CS&K Tribes response to Corps of Engineers suggestion to build an inefficient Dam on the Flathead River, 1980

The Environment

Environmental Science faculty and students conducted research studies on bears, moose, deer, elk, cougars, coyotes, beavers, eagles, osprey, owls, hawks, trout, pike, and salmon.

The Environmental Science Department Water and Soils Laboratory conducts studies to monitor water, soil, and air quality o the Flathead Reservation.

The Reservation contains hundreds of Environmental Science research sites.

Many SKC Science graduates hold management positions in Tribal departments: Forestry, Fish and Wildlife, Range Management, Recreation, Mission Valley Power.

Environmental Science faculty and students recently began work to preserve and restore native plants using a greenhouse process.

The College learned how to work with the Reservation community every day. Today, we will learn what works best is not what worked best yesterday. Tomorrow, what works best may be different than today. The only constants are trust hard work, and the will to do good.

—Joseph McDonald, President, SKC, Speech while River Rafting, 1982

Lessons Learned

Salish Kootenai College was created to help solve the serve social, economic, health, education, and environmental problems that challenged the Tribes' very survival. The success of the College is directly related to the institution's willingness to cooperate with other tribal departments in finding solutions to problems. Three lessons learned guide engagement activities at SKC.

First, institutional engagement is a personal process. The College asks for information and advice, and then listens and studies the responses. A person relating to people builds trust and

encourages greater risk taking to accomplish some agreed upon good. The College often makes commitments based upon verbal agreements between program managers.

Second, consensus on who, what, where, when, how, and why something needs to be done is more important than funding. Committed people with a great hope held in common will find ways to succeed. In many respects the process is more important that the product. Engagement, which begins with funding and without consensus, will probably fail.

Third, when the college enters into an engagement activity, it does its very best and offers high quality services.

Funding Engagement

The description of Salish Kootenai College's engagement in the community it serves is very similar to the engagement activities of the Nation's other thirty tribal colleges, and universities. Each college is very much engaged in its community Dr. Ernest Boyer wrote in a Carnegie special report on tribal colleges in 1989.

"Tribal colleges are truly community institutions. After years of brutal physical hardship and disorienting cultural loss, Native Americans—through the tribal college movement—are building new communities based on shared traditions. They are challenging the conditions that plague their societies and continue to threaten their survival." (Boyer, 1989)

Salish Kootenai College as well as all the other tribal colleges carries out their engaged activities on very limited financial resources. In the same report, Dr. Boyer wrote:

"Tribal colleges also offer vital community services—family counseling, alcohol abuse programs and job training—with little financial or administration support. . . Considering the enormous difficult conditions tribal colleges endure, with resources most collegiate institutions would find unacceptably restrictive, their impact is remarkable."

Extension activities available to tribal colleges are funded at a very modest $50,000 per college for fiscal year 1998. Tribal colleges are thus limited greatly in utilizing extension programs as a vehicle for engagement with the community.

Federal funds coming to Salish Kootenai College by way of the Tribally Controlled Community College Assistance Act of 1979 are generally around $3,000 per full-time Indian student. The tribal colleges try to keep tuition and fees to around $2,000 per student per year. Often the colleges waive tuition for Indian students and receive no governmental support for the non-Indian students they serve. Salish Kootenai College and many of the other tribal colleges try to acquire competitive grants to meet college operational costs. Salish Kootenai College operates on a per student cost of $5,200. This is an amount higher than most of the most of the other tribal colleges, but much less than most public colleges in the northwest area of the United States.

Future Engagement

Plans for future engagement of Salish Kootenai College with the community it serves never end. The needs are great and the College is capable of helping in only so many areas. Future plans call for:

1. Developing the at-distance education program so that more Indian people will be served. Our Mission defines our service area as American Indian people locally and throughout

the United States.

2. Continued development of a revolving loan program for start up loans for Indian small businesses.

3. Establishing a continuing education center complete with lecture and meeting areas, distance education equipment, and food and lodging capacity.

4. Working with K–12 education on the Flathead Indian Reservation to improve attendance, achievement, cultural identity, and social responsibility.

5. Continued development of "Learning to Serve" in our College curriculum and college activities. It is the College's belief that service learning leads to better scholarship and stronger and more viable communities.

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Tuskegee University: *A Portrait of an Engaged 1890s Institution*

Historical Perspective

Founded in 1881 only 16 years after the Civil War had ended and only 40 miles from the original capital of the confederacy, Tuskegee University's very establishment was an act of engagement, which included the local community, state of Alabama, and private philanthropy.

Lewis Adams, a former slave and a local community leader, wanted a school for black people. Col. W. F. Foster, publisher of the *Macon Mail*, needed the support of black voters to win election to the Alabama Legislature. Adams promised to deliver the black vote if Foster would introduce state legislation authorizing the school for blacks in Macon County.

Col. Foster won election with the support of the black vote. Foster introduced legislation subsequently signed by the governor authorizing a $2,000 appropriation for salaries in support of the proposed school to "train colored teachers." A Board of Commissioners, Adams and other community leaders among them, was named to oversee organization of the school.

A local church provided the building, 30 adults were recruited, and Booker T. Washington was recruited from Hampton Institute to be the first principal. "Engagement" was reality.

At that time to entrust its leadership to a young Black man from Virginia was indeed controversial. Very few schools of any kind, at that time, had Black leadership. Washington's purpose was to teach his students how to help themselves, how to build a better life. His approach was simple, that better life depended on the acquisition of skills that were needed where the people lived. The curriculum of the school was developed from the needs of the people and their surrounding community.

When the southern economy of the post Civil War era faltered, it was the genius of Dr. George Washington Carver, who introduced crop rotation and other scientific inventions, which revolutionized Southern agriculture.

Thus, the concept of Tuskegee as an engaged university is indeed as old as the university itself. The founder was particularly determined to minimize any barriers (real or imagined) which would prevent the collective competencies of Tuskegee from being shared with the external community. "If the people can't come to Tuskegee, then Tuskegee will go to the people," Washington insisted. In 1899 Carver, developed plans for a mule-drawn wagon to carry farm implements, dairy equipment, seeds, and other items into surrounding rural communities to demonstrate improved agricultural methods of farming.

"One of the most important activities of our school work at Tuskegee is what we call our Extension Work in which nearly all departments of the Institute cooperate," Washington observed.

The nation's first Cooperative Extension Agent is Tuskegee University's Thomas Monroe Campbell, appointed in 1906. The George Washington Carver/Booker T. Washington "School on Wheels" is the predecessor of what is today widely known as the Cooperative Extension Program.

While each successive administration has continued the tradition and commitment to outreach and extension, there have been variations in emphases, methods and procedure, but the basic mission remained constant.

Tuskegee Today

Tuskegee University is a national, independent, co-educational institution of higher learning that has an historically unique relationship with the state of Alabama and performs a land-grant function as a member of 1890 institutions. With distinctive strengths in the sciences, engineering and other professions, the university's basic mission is to provide educational programs of exceptional quality which nourish the development of higher-order intellectual and moral qualities among people and promote rigorous and sensitive technical, scientific, professional and public-spirited graduates who have a strong liberal arts foundation.

Most of the United States and a number of foreign countries are represented in the more than 3,000 students enrolled. A primary mission is to prepare students to play effective professional and leadership roles in society and to become productive citizens in the national and world community.

Tuskegee University's outreach is wide. Its "engagement" is interwoven into the fabric of the University. "Outreach" and "engagement" parallel instruction and research in the mission of the University.

To ensure that the university's program priorities are consistent with its mission, the university has accepted as its major purpose the development of human potential and is encouraging the development of lifelong learning as an institutional norm. To this end, the Continuing Education Program provides a forum for coordination and support for teaching, research and public service, by strengthening existing educational partnerships and building new ones between the public and private sector in support of improved quality of life for the people we serve.

The new technology today and in the future demands a knowledge based society and understanding about how adults learn. Tuskegee recognized this reality and is responding through its Continuing Education Program which focuses on:

- Development of individual and learning potential;
- Improving personal well-being;
- Upgrading work-place skills/organizational lives; and
- Fostering greater participation in the civic, cultural and political life of the community.

One hundred seventeen years after its founding, Tuskegee University continues to "engage," only with more reach. It continues to champion the special needs of the nation's underserved with a focus on the challenges that face African Americans. Two key developments are adding efficiency and effectiveness to the university's long history of engagement —construction of the Kellogg Conference Center, the only one of its kind on a historically black college campus and one of only 11 in the United States and England; and the designation of a university official, an associate provost, to manage continuing education, engagement and outreach activities.

The Kellogg Center provides an on-campus setting especially designed to meet the special needs of professional development, conferences and workshops. The center's ultra-modern and sophisticated technology extends the university's reach across the United States and internationally. Through video conferencing and satellite technology, the underserved can be reached without leaving their home communities. The center's technology also allows us to serve

more people simultaneously. South Central Alabama, also known as the Black Belt, has historically been the area targeted by Tuskegee University research and extension engagement activities. The 12 Black Belt counties are among the poorest in the nation. And while the university continues to focus on the Black Belt counties, the technology of the Kellogg Center significantly extends the university's reach into more distant communities, some with similar, some with distinctly different needs.

We envision that an expanded full-time staff will be extremely helpful in bringing some focus to our engagement activities, both in Alabama's Black Belt counties and beyond, as well as providing much needed assistance in identifying untapped program needs. Central to the University's Continuing Education engagement activities is "empowering" the people it serves. The commitment is to teach people "how to learn" so that they become lifelong learners.

Changing Structure of Engagement

A major change in organizational structure occurred in 1991, when Cooperative Extension was combined with Continuing Education. President Benjamin F. Payton stated in support of the organizational change: "At a time when the farm population continues to dwindle, where the political support for agriculture is also dwindling. . . because we can produce more with far fewer people. . . when the popularity of agriculture and home economics disciplines dwindles, Extension, Research and Teaching for the purpose of economic development needs to be seen as a collaborative effort that involves the total university. Extension should be generic to every school. It ought not to be seen as only agriculture and home economics, nor should it only be the responsibility of those with Extension titles." The activities that undergird this require bringing continuing education and cooperative extension closer together.

Faculty and staff agree that both the range and complexity of today's problems require an interdisciplinary approach to solutions. No single discipline can be held accountable for solutions that are rooted in educational, social, political, economic, and other grounds. The traditional Cooperative Extension attitudes, behaviors, and tools are not adequate if we are to be effective in this constantly changing and global society.

The campus community also acknowledged that this change would require a paradigm shift. Because change does not come easily and is a gradual process, strategic plans have been designed and are being implemented to include technological training for faculty and staff and total quality management training to promote organizational effectiveness. Appropriate rewards and recognitions are being instituted to ensure smooth transition and to enhance participation in interdisciplinary teams, who are partnering with community, state, regional, and national agencies, and resource holders in order to accomplish the overall mission of the university and the larger community.

Community-Based Engagement

The Southern Food Systems Education Consortium (SOFSEC) is a group of five 1890 institutions and Tuskegee University located in the heart of the Black Belt region of the United States and funded by the W. K. Kellogg Food Systems Professions Education (FSPE)

initiative. SOFSEC members include Alabama A&M University, Alcorn State University, Fort Valley State University, North Carolina A&T State University, Southern University and A&M College, and Tuskegee University. The consortium was established to refine and redefine the vision, mission, and programs of these institutions in a way that will allow the institutions to engage a rapidly changing world, renew their pact with the people they serve and enable them to become, individually and collectively, models of relevance and excellence. In its initial form SOFSEC placed a heavy emphasis on partnerships between the education institutions and local community-based organizations. These partnerships have expanded to include two more 1890 institutions, South Carolina State University and the University of Arkansas-Pine Bluff, to form **SOFSEC Plus** and the **Southern Rural Development Initiative (SRDI)**, a network of 24 local community-based organizations. As a part of the engagement process, a task force was created to identify and correlate the interests and resources of SOFSEC+ and SRDI that could be mobilized to address critical issues facing the rural South. Core priorities found to be highly compatible between the two consortia were recommended as a foundation for planning and designing collaborative projects. These priorities include job creation through agribusiness development, the use of satellite communications for courses shared between universities and community-based organizations, leadership training for youth and empowerment, the development of effective collaboration with elected officials, the promotion of healthy lifestyles, and efforts to offer affordable childcare for low income families.

Tuskegee University was intricately involved in assisting nine Alabama communities apply for federal Empowerment Zone/Enterprise Community (EZ/EC) designation. The Sumter/Greene County Enterprise community was designated and received funds for the implementation of its economic community applicants to maintain their planning infrastructure for future economic development opportunities.

One of the outgrowths of the strategic planning process in Macon County was the organization of a Community Development Corporation (CDC) with funding from the U. S. Department of Housing and Urban Development. The CDC will: (1) provide technical support assistance to help make existing small businesses more efficient and profitable and (2) support the development of business plans and identify funding to support those plans for new business starting up. The CDC board of directors is made up of a cross-section of Macon County residents, including members of the Tuskegee University community.

When the General Electric Company decided to locate a plant in poverty-stricken Lowndes County, Alabama, it did not take long to note the absence of employable skills in Burksville and nearby cities. To generate interest in science and technology and to enhance the skills of future employees, General Electric invested $1 million in an academic readiness program.

Tuskegee University was designated to administer a pre-college assistance program that sought to help prepare participants for the Scholastic Aptitude Test and to strengthen their skills for careers in math, engineering, science, business and health.

Students in grades nine through twelve received

tutorial instruction in algebra, pre-cal, trig, and geometry, and in some cases the students were exposed to courses not available in the public school curriculum, such as computer science. The instruction took place for four hours on Saturdays in the Lowndes County school area, but the students visited the Tuskegee University campus for workshops.

During the five years of the program, participants matriculated at Tuskegee University, Auburn University at Montgomery, the University of Alabama, Morehouse College, Alabama A&M and other postsecondary schools. They studied chemical and electrical engineering, architecture, medical technology, computer science and among other career fields, education.

There was marked improvement in test scores, an increase in the number of students going to college, many achieving honor roll success. ACT scores better than doubled from an average of "9" to "18 plus". One of the program participants completed his baccalaureate degree at Tuskegee University with a perfect "A" academic average. Several of the program participants are currently teaching in the Lowndes County school system. One of the students returned to Lowndes County as the school district's technology coordinator. Her exposure to computer science in the GE sponsored program was her only exposure to technology prior to enrolling at Tuskegee University.

One of the program administrators noted that the students worked hard, motivation was not a problem, and they seemed to have reached higher expectation through their association with college professors.

The program still has the support of external funding, but the emphasis has changed to a focus on facilities improvement. Additional funding would allow the highly successful tutoring component of the program to continue while in-school facilities are improved.

Similar success has been enjoyed over the years with several pre-college programs in engineering—Freshman Accelerated Start-up Training for Retention in Engineering Curricula (FASTREC), Research Apprenticeship for Disadvantaged High Schoolers (RHADS), and Minorities Introduction to Engineering (MITE).

FASTREC was started in 1975 and RHADS and MITE were first offered in 1980.

FASTREC is an eight-week program for freshmen. The high school graduates enroll in credit courses in mathematics, engineering graphics and computer programming. They have manifested an interest in science and engineering and the FASTREC program promises to give them a "head start" with collegiate studies.

MITE encourages 9th and 10th graders to consider careers in science and engineering. Field trips and lectures are used to expose the students to career opportunities during the one-week period of this program.

RHADS has a research focus. The program encourages students to work toward graduate degrees after completing requirements for the baccalaureate, or at least to include graduate study in their plans for professional growth and development.

Records indicate that at least 50 percent of the freshman class in engineering not uncommonly came from participants in the FASTREC program. And according to a master's thesis which tracked FASTREC students, the latter scored higher than their classmates who did not enroll in FASTREC, and FASTREC students graduated sooner than did

other students in the engineering programs.

All three of the pre-college programs enjoyed external funding from corporations such as Alcoa, General Electric, General Motors, Proctor and Gamble, Xerox, the U. S. Army, and the Office of Naval Research. As the number of sponsors has declined, so have the number of students enrolled in the three programs. Indeed, MITE and RHADS may not continue in 1998, and enrollment in FASTREC was significantly down in 1997 and could continue to drop in 1998.

High on our list of numerous and successful programs of engagement initiatives is the Wil-low Scholastic Development Program. Five years ago, parents, school personnel and community volunteers in Wilcox and Lowndes Counties collaborated to develop a program designed to involve parents in the educational process and to enhance learning skills. The program had initial funding from the Citizen Scholarship Foundation of America and later the W. K. Kellogg Foundation.

Some 200 students were involved in after-school tutoring in reading, mathematics, and science. Some tutoring sites were maned by teachers, some by volunteers, and some by volunteers and teachers. No students were denied participation in the program but fourth and seventh graders were monitored.

Student test scores improved from 60 to 80 percent in reading, from 43 to 75 percent in mathematics, and from 58 to 77 percent in language.

Tuskegee University played a key role in identifying the need for parents and teachers to acquire new skills that would enable them to better assist students "in substantive and meaningful ways." Parents and teachers initially participated in an intensive training program at Tuskegee University under the supervision of Cooperative Extension Specialists and consultants. Since that time, at least 30 parents have completed a 15-week training program.

And under the Dollars for Scholars component of the engagement project, 21 $500 scholarships have been awarded students to support them in some kind of postsecondary training. This is the third year the scholarships have been awarded, and 16 of the scholarship recipients are still enrolled in school.

Tuskegee University was founded with the special purpose of preparing African American teachers. Our mission is much broader now, as it should be, but we have not gotten away from preparing teachers. And there are some exciting activities under way in our Division of Education. One of our engagement programs has been addressing the national shortage of teachers of students with disabilities.

For two consecutive summers, we have engaged almost 30 high school students in "hands-on" experiences with students with disabilities. Special Education Summer Learning Experience (SESLE) is a collaborative project with nearby Auburn University. We wanted the young people involved in this two-week experience to see a disability as only one characteristic of the person. Our program planners reasoned that we needed to change attitudes about people with disabilities if we were to increase the number of career professionals in this area.

Over a two-week period, we divided the time between Tuskegee University, Auburn University and Alabama's Special Camp for Children and Adults. At Tuskegee University, the program participants were engaged in sensitivity training, learned the nature of different types of disabilities, and how to interact

with people with disabilities.

A weekend at Camp ASCCA was spent applying what they learned at Tuskegee University, working with children and adults of all ages. At Auburn University, the students were exposed to more discussions about disabilities, but the program was also expanded to include seminars on preparing for collegiate study—time management, study skills, and how to use the Internet.

This program had funding support from the U. S. Department of Education, but many more students could have been engaged with additional funding. And in addition to increasing the number of high school students engaged, increased funding can also make possible expansion of the program into the high schools from which the program participants are recruited. Meanwhile, we think we enlightened some minds about people with disabilities.

Also in the Division of Education, the Lilly Endowment is supporting a Professional Development School that is expected to significantly strengthen our own faculty while at the same time enhancing the faculty of a partnering public school.

Eight years ago in 1991, Tuskegee University launched a Professional Development School through a relationship with South Macon public school in Macon County. The purpose of the Professional Development School was to provide university faculty with more knowledge of the school environment for which they were preparing professional teachers.

The more they knew about the school environment, our faculty reasoned, they could accordingly better prepare students and subsequently, professional teachers. On the other hand, the more time our faculty spent observing the public school classroom, the more opportunity they had to expose public school teachers to new and more effective teaching strategies.

As one of the program planners explained it: "We (the University faculty) will be a resource for them, and they (the public school faculty) will be a resource for us."

The Professional Development School calls for workshops on a range of curriculum topics, on classroom management, computer software in education, facilitative leadership, strategic planning, and other subjects. The program plans also call for the University and public school faculty to visit what they are describing "exemplary schools" and to adopt "best teaching practices" observed during the visits.

It is noteworthy that our current Professional Development School grew out of our experience some five years ago. We have funding for the current effort but learned abundantly from the initial effort that did not have external funding support.

The Role of Partnerships

All of these community-based examples of engagement are based on an active partnership between Tuskegee University and the community with the goal of capital development. This takes the form of both economic capital in the form of small business development and human capital in the form of education and training from K–12 and higher education. It is this comprehensive engagement that leads to a true investment that provides a continuous and expanding flow of dividends.

International Engagement

Tuskegee University's commitment to community engagement traditionally has included a very strong international component. The concept of the "world community" is very real, and Tuskegee has acted in this arena for close to a century, starting with John W. Robinson, class of 1897, who was sent in fall of 1900 to the German colony in Togo to assist in cotton production.

In more recent years, Tuskegee's engagement of the world community has focused well beyond production agriculture as a means for rural community development, to specific rural development efforts. As with its domestic programs, Tuskegee works closely at the grass roots level so that: (1) those who will benefit the most receive direct assistance; and (2) local leadership entities are provided with the training necessary to continue the program once Tuskegee's work is completed.

Currently, Tuskegee University has signed MOUs with twenty institutions in twelve countries in Africa, with five institutions in five countries in the Caribbean, Central and South America, and with one country/institution in Asia. The following three examples are provided as a means of highlighting how Tuskegee engages a community development effort through: (1) the training of local leaders in the U. S.; (2) the training of local communities in-country; and (3) the combination of training methods, both in the U.S. and in-country.

To assist emerging democracies in Central America, and supported by USAID starting in 1986, the Central American Peace Scholarship, or CAPS, Program has brought groups of community leaders and small-scale entrepreneurs from Central America and the Caribbean to the United States and Tuskegee for an intensive educational and experiential learning program. To date, 13 CAPS projects have been implemented, with participating groups and countries.

Funding Engagement

The process of engagement requires substantial and sustained financial support. Such support from the federal, state and local levels has been a challenge for the 1890 institutions and Tuskegee University. Since the passage of the Smith-Lever Act in 1914, creating a nationwide system cooperative extension, little or no public funds have been available to the historically black land-grant institutions to support extension work. Instead, federal extension funds have been channeled to states for distribution, with most states (including Alabama) choosing not to share those dollars with the 1890 schools and Tuskegee University.

In 1972, a funding formula to assist black land-grant institutions was devised under provisions of PL 89-106. Under that measure and administered through the 1890 Morrill Act, funds appropriated to conduct "1890 extension program" were sent directly to the 1862 (majority) institutions. Therefore, the decision to employ, terminate or promote personnel rested with the 1862 State Cooperative Extension directors. It was only in 1977, when President Jimmy Carter signed PL 95-113, that extension funds were permitted to go directly to the 1890 institutions (and Tuskegee University). In the early 1980s, different Acts affirmed the unique federal and state partnership for extension work and expanded the definition of food and agriculture sciences.

Tuskegee University has used extramural

grants, memoranda of understanding and cooperative agreements as means of bridging the gap between minimal legislative financial support and programs essential to its clientele.

Tuskegee University is using a $5 million grant from the National Aeronautics and Space Administration, for instance, to support the Center for Food and Environmental Systems for Human Exploration of Space. Not only is high technology directed at finding food for space, but earth-bound benefits are directed at local school children who visit the research facility and who are encouraged to consider careers in agriculture outside the "farm."

Black Belt farmers, for example, are assisted by a cooperative agreement between the USDA and Tuskegee University to support a Small Farmer Outreach Training and Technical Assistance Program. With an annual budget of $280,000, the goal of this program is to provide limited resource and minority farmers the assistance needed so that they can participate in the financial, production and farm family programs that have traditionally been denied. Other funding sources include the Department of Health and Human Services, the United States Agency for International Development, the Department of Energy as well as private sources such as the Kellogg and Ford Foundations.

Yet, despite the value of these and other programs, they are all at risk because they are based on special grants, donor-driven proposals, or annual appropriations. This is a major challenge to program planning at Tuskegee University.

The Future of Engagement

Given past successes and challenges, the future of engagement at Tuskegee University lies in the partnerships and collaborative efforts it develops, both internally and externally. It was a partnership with the state of Alabama that Tuskegee University was founded to train African-American teachers. Longstanding partnerships today include the national Professional Agricultural Workers Conference, the 1890/USDA Task Force, the Alabama Consortium for Forestry Education and Research (Tuskegee University, Auburn University, Alabama A&M University, the USDA Forest Service, the National Forests of Alabama, the Alabama Forestry Commission and others).

Extension, Continuing Education and other outreach activities will appropriately continue to be a central force and organizing center for institutional engagement at Tuskegee.

University of California Davis:
A Community Member in Good Standing

The University of California Davis, and, indeed, all land-grant institutions, have an obligation to share knowledge and expertise with the communities we serve. The challenge of engagement today is to expand the philosophy and practice of the land-grant model to reflect the profound transition of American society from a rural, agricultural economy to a largely urban population heavily dependent on technology and information. Our parallel challenge is to move from a knowledge dissemination mode more common in an earlier time to one of engaging in mutually beneficial partnerships with a wide variety of constituents.

Our outreach work is building a foundation for the university of tomorrow. We cannot continue to flourish without ongoing interaction on many fronts, in many ways, with a surrounding community. We must look outside the academy and ask: What are the needs of society? And then look inward again to see how we might help meet them. We must resolve to listen, and listen carefully, to what our fellow citizens have to say to us. Through this careful listening and attention, we will learn not only how to be most effective in providing assistance, but how to broaden and enrich our own scholarly pursuits.

To be fully engaged is an essential element of the mission of UC Davis, and we are working in many ways to live up to this concept. The following are a few examples, of many that might be cited, of mutually beneficial partnerships in service to society.

Partnership Programs with K–12 Schools

There are more than a hundred distinct programs, in the Division of Education as well as many other campus academic units, which provide resources to address critical issues in California's public schools. A particularly noteworthy example is the Educational Outreach Initiative, developed during the past year in partnership with California State University-Sacramento, the Los Rios Community College District, and three Sacramento school districts with large proportions of students underrepresented in higher education. Its goal is to expand opportunities to prepare students for access to higher education through 1) school-centered initiatives to develop more effective curriculum and instruction, 2) student-centered initiatives providing information and motivational programs featuring UC Davis student tutors, and 3) family-centered initiatives that include and empower families in the education process.

Planning for Regional Economic Development and Growth

UC Davis is working with partners in the cities and counties of the Sacramento region in a variety of ways to create a positive vision of our regional future. In particular, the university works closely with Valley Vision (the chancellor is a member of its Board of Directors), a regional coalition of business, academic, and community groups created to address issues of regional growth and development. Work includes providing the services of the Sustainable Communities Consortium for community development, transportation and urban growth modeling, and environmental design. Programs in the

SCC include Community Design and Planning Services and the Institute for Transportation Studies. The University's Graduate School of Management is the home of a Business Partnership Program, providing access to UC management resources and student assistance to regional businesses. And University Extension (the university's continuing education program) provides a substantial array of programs specifically designed for the regional workforce—some designed jointly through participation in consortia of regional businesses.

Working with Valley Vision, UC Davis has formed a partnership with California State University-Sacramento, and three regional community college districts, Los Rios, Yuba, and Sierra, to create The Capital Region Institute. The mission of the Institute is to provide academic and applied research, public opinion sampling, and analytical models that will inform public policy decision making on issues of regional significance.

The University is also contributing substantially to the work of the Regional Cluster Project, an initiative of the Urban Land Institute, Valley Vision, and many other regional partners to plan for "smart growth" and development, particularly related to "clusters" of regional economic activity. Work group discussions of the Cluster Project are being facilitated by Common Ground—Center for Cooperative Solutions, a joint initiative of University Extension and faculty of the School of Law providing mediation, facilitation, and problem assessment services. The Information Center for the Environment is providing decision support technology and assistance in developing geographic information systems for regional analysis. And University Extension is providing educational programs support; e.g., in developing a new professional sequence curriculum in telecommuting to help address workforce and mobility challenges in the region.

Human Corps

This program promotes student involvement in community service and provides a liaison between students and agencies needing assistance. Projects range from short-term projects to long-term internships and include highly personal service such as teaching adults how to read, adopting a grandparent, or working in a community health clinic.

UC Davis Medical Center Clinics

UC Davis medical students and physicians make significant contributions to the health of underserved populations, particularly in the Sacramento urban area, through their volunteer work at community clinics. These programs have been recognized nationally as an exemplary partnership between an academic medical center and the community.

University in the Library

California's small towns and rural areas support local public libraries that represent a significant network of learning opportunities. This network is now being enriched by a new partnership between small local libraries, the California State Library, and UC Davis. Faculty speakers travel to community libraries in less-populated areas to give presentations on topics identified as being of particular interest in the community. The program is designed to create a continuing connection between the community and the campus.

National Association of State Universities and Land-Grant Colleges

UC Davis Presents Community Outreach

This program brings distinguished lectures, artistic and cultural events to public schools, senior centers, and other non-traditional performance venues. It annually enriches the lives of over 10,000 students, teachers and members of non-traditional audiences through school matinees, open rehearsals, residencies by artists, and master-class opportunities for students of the arts.

Memoranda Of Understanding (MOUs) With State Agencies

The University has developed broad partnership agreements with the California Resources Agency and with the California Youth Authority for collaborative research, education and outreach. Some of the diverse initiatives of these MOUs, managed through our Public Service Research Program, include a Fellowship program providing for short-term (three-six month) exchanges of agency professionals and campus faculty and staff to work on projects that address issues of statewide concern.

Welfare Reform: Assessment and Action

Recent changes in federal welfare policy have resulted in a greater state and local responsibility for policies and programs at the same time federal aid is being substantially reduced. An extensive investigation of community response to welfare reform in selected California counties is underway in the California Communities Program. This applied research will monitor the variability of responses in counties from diverse regions of the state, and will focus in particular on the degree to which prominent non-profit agencies influence the direction of reforms in any particular community.

The Center for Human Services Training and Development, a unit of University Extension, is working closely with counties throughout the state providing training and professional services related to immediate and anticipated effects of welfare reform. Programs involve retraining front-line workers, fostering collaboration between the public and private sectors, and supporting coordination of services to families and children. Partners in the Child Care Training Project (designed to help expand the quantity and quality of care available to people moving from welfare to work) include the Center for Child and Family Studies.

Community Engagement: A Twelve-Way Test

These fundamental principles have emerged as guidelines in leading UC Davis toward the highest level of quality in its extensive community engagement. Our diverse outreach initiatives—involving business, government, and community groups—are united in spirit by the common goals of these principles.

1. **Responsiveness.** Are we listening to the communities we serve? Asking the right questions to enable us to offer our services at the right time and in the desired way? Outreach is "in reach" as well—mutually beneficial because it brings the university valuable information.

2. **Accessibility.** Is the program likely to be equally accessible to all constituencies, including those that are clearly minorities in the state?

3. **Integration.** Do the program activities fundamentally integrate with the scholarship of our institution with our

teaching, research, and public service missions? Does the program naturally emerge from the academic mission(s) of department(s) and school(s)?

4. **Engagement.** Does the current institutional climate foster the program's required engagement? Will faculty invest their time and talents in the outreach? Will the program promote faculty and student involvement by recruiting respected faculty and student leaders to be advocates for the program?

5. **Coordination.** Does the program support and encourage the coordination of the efforts of the various campus entities responsible for university outreach, including academic units, public communications, and government and community relations offices?

6. **Translation.** Will the program teach faculty, staff, and students the skills of translating expert knowledge into public knowledge?

7. **Funding partnerships.** Does the program encourage funding partnerships with business, government, and non-profit organizations?

8. **Resources.** Are the available resources sufficient to achieve the program goals?

9. **Partner respect.** Does the program fully respect the skills and capacities of partners in collaborative projects? Recognize that we have much to learn as well as to offer?

10. **University neutrality.** Does the program maintain the university in the role of neutral facilitator and source of objective information when public policy issues—even contentious ones—are engaged?

11. **Communication.** Does the program provide resources and space for preliminary community discussion of the public problem to be resolved?

12. **Publicity.** Does the program include resources and plans to publicize university activities? To increase community awareness of the program resources available for outreach?

The University of Illinois at Chicago: *The Great Cities Program*

UIC's Great Cities program expresses the university's commitment to direct its teaching, research, and service programs to address urban issues in the Chicago metropolitan area. Great Cities refers to the mission of the university as a whole, and as such encompasses work done by hundreds of faculty and university departments.

The Great Cities concept combines the older "urban mission" of the urban campus of the University of Illinois with the Carnegie Commission Research I designation that the campus achieved in 1983. The Great Cities concept rests on the idea of a close relationship between research and the issues faced by people and institutions in the metropolitan area. The metropolitan area poses questions and issues that actually represent opportunities for first-class research, and interaction with external audiences is an essential component in conducting this research.

1. With whom do we engage?

University involvement in the community is not a new phenomenon. Historian Thomas Bender describes initiatives supported by Columbia University in the 19th century, as well as John Dewey's prescriptions for the University of Chicago at the beginning of this century. Since the last century, the concept of the land grant university has been based on the belief that the university should be useful to its community in a direct and applied way, not just through the education it provides or the long-term potential benefits of pure research.

Following this model, UIC's engagement includes virtually all aspects of society. With a university hospital and a full complement of health sciences colleges, UIC is engaged with partners in all aspects of health and healthcare, from individual patients, to neighborhood, city and state health centers and public agencies, to pharmaceutical corporations and professional associations. As a partner in the Chicago Technology Park, UIC works with city and state agencies and other institutions in the Illinois Medical District on issues of technology transfer. The colleges of business and engineering have multiple partnerships with companies ranging from Fortune 500 corporations to family- and minority-owned start-up firms. The college of education has extensive contacts with individual schools throughout the metropolitan area, as well as with local and state education agencies. Other colleges work with neighborhood organizations, civic groups, government departments, legislators, and other partners throughout the world.

2. How do we fund the engagement agenda? And how do the people on our campuses make time for it?

The Great Cities program received direct funding in the form of a special, recurring state allocation of $1.5 million. In addition, it is being used as an organizing theme for UIC's $300 million development campaign. The commitment embodied in the Great Cities program was directly credited for the decision by the Kellogg Foundation to award UIC a $3.4 million International Health Leadership Center, and awards by the U.S. Department of Housing and Urban Development of a $580,000 Community

Outreach Partnership Center grant and a $2.4 million Joint Community Development program grant. Finally, the new College of Urban Planning and Public Affairs, in its third year of operation, leads all UIC colleges in per capita external funding.

To get to this stage, and to encourage faculty to make time for Great Cities-type activities, required vision, leadership, and participation.

Vision refers to the conceptualization and framing of the idea of engagement as applied to the particular institution. For each university, this formulation will differ depending on its specific history and context. For UIC, the Great Cities concept worked because it modernized the "urban mission" idea that had been part of UIC's mission since its establishment immediately after the Second World War and enhanced it with the research focus that had become so critical to the institution in the 1980s, after the merger between the University of Illinois at Chicago Circle and the University of Illinois Medical Center. When newly appointed Chancellor James Stukel conducted orientation interviews with the leadership of the metropolitan area after his appointment in 1991, he further found that UIC had no clear identity and was often seen as unresponsive to the problems faced by the metropolitan area. The Great Cities concept was designed to create an identity as well as highlight and encourage UIC's engagement with the metropolitan area.

Leadership from the top is essential, regardless of the popularity of "bottom-up" and "grassroots" initiatives. The Great Cities concept was initiated by the chancellor and unequivocally supported by him and his management team (Stukel, 1994). Without such support, it would not have been possible to gain acceptance for this new way of thinking about the identity of the institution and its relation to the community. Strong support from the top can create amazingly rapid change, even in such notoriously change-resistant organizations as universities. This requires the utilization of all leadership tools, such as frequent use of the "bully-pulpit" to talk about the program; a willingness to use internal administrative power and discretion to allocate resources and speed-up approval processes; using external power to obtain new resources and validation (such as the $1.5 million in recurring funds provided by the state legislature); and constant attention to how the concept may be implemented in all parts of the institution, rather than marginalized in one or two specialized units (the special assistant to the chancellor played a leadership and coordinating role, but Great Cities-type projects throughout the university did not report administratively to him).

Participation is the final critical element for implementation. During 1993, a broad Great Cities Advisory Committee held numerous meetings and hearings, involving over 200 faculty and staff, as well as external participants. Collectively, they further defined and refined the Great Cities concept; inventoried existing Great Cities-type projects at UIC; and recommended new structures, processes, and programs. The Chancellor's Corporate Advisory Board also played a lead role in developing the Great Cities concept, and provided early financial support and legitimation. The Great Cities program was announced jointly by Chancellor Stukel, Mayor Richard M. Daley, and NASULGC president

C. Peter Magrath in December, 1993, at a meeting with 500 attendees representing Chicago's political, community, civic, corporate, and academic leadership.

An important aspect of the Great Cities program is that it includes many programs that were already in existence. The program provides a focus and organizing principle for what many faculty are already doing, and it expresses an institutional commitment to increasing, facilitating, and highlighting work that serves this metropolitan area and others. The inventory of existing activities identified 212 programs and projects; this inventory is now updated annually for all three campuses of the University of Illinois. The Great Cities concept had the important effect of legitimizing and validating many of these programs, and helped them grow and in some cases transform into larger new efforts. In addition, several new programs were started to provide a showcase for the program and to model what Great Cities at its best represents. The new programs include the College of Urban Planning and Public Affairs (bringing together several existing units in a new configuration); the Great Cities Institute, a new interdisciplinary, applied urban research center; the Great Cities Faculty Seed Fund, which provides incentive funding for faculty to engage in urban-oriented applied research or outreach; and the UIC Neighborhoods Initiative, a comprehensive neighborhood revitalization partnership involving UIC and two adjacent neighborhoods.

3. How do we manage the tension between our simultaneous interests in focusing on our teaching, research, and service missions and responding to community demands?

One way of managing the tension is to reconceptualize the traditional functions and mode of operating of the university. A key aspect of the Great Cities program is the notion of partnership. In the past, universities generally operated on the deficit model: the community, or society at large, had certain needs, and the university, as the home of the experts, would fill these needs. In other cases, the community was merely seen as laboratory, with more or less compliant "guinea pigs."

In a partnership model, relations are more equal. It is acknowledged that both parties have needs and that success requires a mutual recognition of needs, shared problem definition, and a joint search for solutions. Politically, the partnership model acknowledges the reality of dealing with external publics who no longer stand in awe of universities. Intellectually, it is based on the notion that knowledge does not just reside in the university, but that there are many kinds of knowledge, developed and held by different sectors of society, and that further advances in knowledge require joint activity. Mary Walshok (1995) argues that universities must develop knowledge linkages that bring together different partners to share the types of knowledge they have.

The Great Cities concept also rests on Ernest Boyer's definitions of scholarship. In particular, by emphasizing that application and engagement are forms of scholarship, just as much as research and teaching, Boyer points out the essential similarity and continuity of all aspects of the work of academics, and transcends the artificial separation in categories of teaching, research, and service.

4. What seems to work in terms of faculty involvement, incentives, and rewards?

The explicit formulation of the Great Cities concept as a way of expressing the idea of the *Engaged University* has changed and benefited UIC in many ways. This conceptualization, and its frequent communication by university leadership, has probably been the most important in providing a structure and incentive for faculty involvement. At the same time, there still are many areas of improvement or obstacles to achieving everything one might want to see in the ideal engaged university.

The number of faculty and projects involved in partnerships with community, civic, business, and public entities has grown over the last five years in number as well as sophistication. The Great Cities Faculty Seed Fund alone has supported 75 projects with a total of $555,700 in seed grants, leveraging over $7 million in new external support. Every year ten faculty are selected as Scholars at the Great Cities Institute. Starting in 1998, new faculty will participate in orientation tours of Chicago organized by the Great Cities Institute and focusing on 'the scholarship of engagement.' There is an increased amount of sharing of knowledge about how to create and sustain partnerships. More external agencies are approaching UIC about collaborations, which creates research opportunities for faculty. Several campus units are developing or offering workshops for graduate students, junior faculty, and others, on how to conduct collaborative research and outreach projects, further increasing the number of people able to participate in Great Cities-type projects.

The recent reaccreditation of UIC by the North Central Association for the first time did not raise the question of UIC's mission. The goal of becoming a model urban university along the lines of the Great Cities program, taking advantage of UIC's urban setting, has also been accepted by the Illinois Board of Higher Education as the distinguishing characteristic of UIC among public institutions in the state. Several new degree programs have been approved by the Board of Higher Education explicitly because the programs' rationale was tied to the Great Cities concept. Thus, faculty and administrators can clearly see the advantage of tying activities and aspirations to the Great Cities concept.

In an institution as large and diverse as UIC (with a $1 billion budget, 25,000 students, and 11,000 staff), acceptance—or even awareness—of the Great Cities focus is of course not universal. Among faculty, those in the hard sciences often express scepticism or even outright opposition to the idea, and some others consider it merely a public relations ploy. Also, because of UIC's character as a commuter campus, where most of the students work full- or part-time jobs, service learning has not been a major emphasis. (However, there are many urban-oriented courses, including several new ones developed explicitly with Great Cities themes, and a special catalogue of urban courses has recently been published.) In addition, there has only been slow progress in changing promotion and tenure criteria to include more applied and outreach activities, especially outside of the professional schools. (This is probably due in part to caution because of UIC's relatively recent status as a Research I university). Finally, new and shifting priorities at times compete for attention and resources. For instance, a

planned major physical expansion of the campus is seen by some external organizations as a threat to surrounding neighborhoods and therefore in contradiction to the Great Cities idea. Others fear that the campus goal of qualifying for membership in the American Association of Universities, with its heavy research emphasis, will conflict with the outreach orientation of Great Cities. (At its best, the Great Cities concept, of course, integrates research, teaching, and outreach).

5. How do we make ourselves accountable and measure success in terms that are meaningful to our institutions and our communities?

Success is measured primarily in a qualitative manner, through the judgement of bodies such as the Chancellor's Corporate Advisory Board, the Illinois Board of Higher Education, legislators, funders, and other external partners, as well as by the interest of other institutions in replicating the Great Cities program.

The Great Cities concept has increased the visibility of UIC among local institutions, and relations with the Chicago mayor's office have never been more intense. The other two University of Illinois campuses have developed similar programs in order to gain a similar visibility—the *Partnership Illinois* program at Urbana-Champaign, and *Capital Outreach* at the University of Illinois at Springfield. Articles about the Great Cities program have appeared in the *Chronicle of Higher Education*, *Metropolitan Universities*, *NASULGC Newsletter*, *Journal of Planning Education and Research*, *Renaissance Magazine*, as well as local newspapers. UIC representatives have been invited to speak about the program at other universities, including the University of Washington, SUNY-Buffalo, University of Alabama-Birmingham, University of Chicago, University of Ulster-Northern Ireland, University of Massachusetts-Boston, and others.

In sum, *Great Cities* has crystallized and advanced UIC's goal of becoming a model urban university, and is a prime example of how engagement and partnership can help a university achieve excellence and recognition.

6. What new organizational arrangements are required to build an infrastructure for engagement?

The Great Cities program was first planned and developed through the specially created Office of the Special Assistant to the Chancellor for Great Cities. This office played a planning, implementation, and coordination role. However, it explicitly did not claim to be the sole access point, or to be in charge of all Great Cities-type activities. There has been a deliberate emphasis on the idea that as a mission-defining concept, Great Cities should be highlighted and implemented by a multitude of organizational units.

Nevertheless, several new units were also created. The new programs include the College of Urban Planning and Public Affairs (bringing together several existing units in a new configuration); the Great Cities Institute, a new interdisciplinary, applied urban research center; the Great Cities Faculty Seed Fund, which provides incentive funding for faculty to engage in urban-oriented applied research or outreach; and the UIC Neighborhoods Initiative, a comprehensive

neighborhood revitalization partnership involving UIC and two adjacent neighborhoods.

The Great Cities program continues as an institutional priority, even after significant changes in campus leadership. Since the program's announcement, there has been turnover in the positions of chancellor, provost, three of four vice-chancellors, and ten of the fifteen deanships. Indeed, in most position descriptions for the searches for these campus leadership positions, the Great Cities concept is mentioned explicitly. Support for the Great Cities program is one of six priorities on current Chancellor David Broski's list of priorities, *The UIC Agenda*, along with such items as maintaining the financial soundness of the UIC Medical Center and improving undergraduate education. The Great Cities logo is the only graphic symbol approved for university use, other than the official logo consisting of the letters **UIC**, and the "Flames" logo for athletic events. Finally, the Deans' Council is serving as the official advisory committee for the Great Cities program.

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The University of Vermont: *The Path to Engagement*

My object in establishing the University of Vermont is not only for the benefit of the present but for future ages, and that it may be useful to society in an Extensive View. . . It is the not the Rich that I am calculating so much as the Poor. The Rich can send their sons to what college they choose. But the poor have it not in their power. Yet they may have the most promising Posterity and if they can obtain good education may in turn be rulers of the land.

—Ira Allen, Founder of UVM (late 1793 or early 1794)

Introduction and Brief History of UVM

In 1791, Vermont became the fourteenth state in the Union. That year, the new Vermont legislature and the governor enacted a charter establishing the University of Vermont (UVM). From its earliest days the university was guided by an underlying philosophy consistent with the later emergence of the land-grant concept. However, the relationship of the land-grant mission to the core identity and functions of UVM has been a challenge since 1865. In 1864, the legislature created the State Agricultural College under the auspices of the Morrill Act of 1862 that established the land-grant colleges. A year later, the new land-grant college was merged with UVM to create one corporate entity. From that time until the mid 20th century, UVM functioned as a private college with an associated public land-grant mission embodied in the State Agricultural College.

In 1955, at the behest of the university, the Governor and the Vermont General Assembly designated UVM as "an instrumentality of the state" and increased the annual state appropriation to provide support for agricultural programs and medical education and to underwrite partially the tuition costs for Vermonters. In this new relationship with the state, UVM committed itself to offer admissions preference to qualified Vermonters and in other, ill-defined ways, to "serve the state."

The portrait below takes up the story twenty years later with the UVM Planning Report prepared in 1975 during the interim presidency of Wayne C. Patterson and traces the evolving relationship between UVM and the state of Vermont and the shift from a sketchy view of UVM as an instrumentality for specific state aims to a broader definition of service and finally toward a new sense of engagement at the close of the millennium.

The Context: The Changing Covenant from 1975 to 1990

There is more interest in planning today because of strong pressures for increased accountability. . . there is a need to reassess and clarify missions, goals, and priorities of the University within the context of the relationship between the university and the State of Vermont and their mutual responsibilities.

—Comments of Interim President Wayne C. Patterson, UVM Planning Report (1975)

By 1975, the university began to re-examine the relationship between itself and the state. In the postwar years, broad societal shifts challenged institutions of higher learning and called upon them to clarify institutional identity, develop more inclusive approaches to governance, and attend more seriously to the question of purposes and public accountability. This self-examination coincided with the regular accreditation review at UVM. In

preparing its 1978 self-study, the UVM Mission was revised to include a strongly worded statement that a primary role for the university was to "focus a significant portion of its resources on serving the practical concerns of the citizens of the state." The university also reaffirmed that its primary constituency was a "student body drawn from Vermont and throughout the nation."

Prior to this watershed era, any bright Vermonter of modest means who wished to go to college usually went to UVM. It was "the thing to do then" according to one graduate from the early 1950s. Over the next decade, this dynamic would change dramatically. The 1988 Self-Study for Accreditation carried a new mission statement that refers to UVM's "service missions in the land-grant tradition. Tellingly, the modifying phrase "a significant portion" of its resources was omitted. The mission contained the statement that UVM was to direct its resources toward. . . public service to the citizens of the state and the nation." What happened in that decade was that the allocation of public funds to UVM which had been dropped steadily since the early 1970s, began to decline more precipitously.

The impact of the decline in state support emerged slowly. In 1975, the institution was holding firm to the understanding that "the principal purpose of the University is to serve the needs of Vermont students for higher education at the undergraduate level. This is the cornerstone of our existence as a state university and the principal justification for UVM's receipt of state support." (UVM Annual Planning Report 1975). During that era, all of the institution's evaluative and strategic planning activities were aligned with a deep sense of responsibility toward Vermont and by the clear understanding that strong state support depended upon the willingness of UVM to serve Vermonters. A review of documents prepared each year for submission to the legislature reveals that a significant part of the rationale offered by UVM for state support was the argument that part of UVM's role as an instrumentality of the state was to educate Vermonters.

In 1980, President Lattie Coor introduced a five-year plan for the University of Vermont that highlighted "those features of the University of Vermont we most need to enhance in the period immediately ahead." The report emphasized UVM's strong identity as Vermont's university, its reputation for high quality, the fact that its applicant pool from out-of-state is competitive with the nation's better private colleges and the centrality of students and the quality of their education. The early signs of a shift in emphasis were there with the emerging emphasis on the dual attributes of a private institution and a land-grant university identity, along with a strong commitment to strengthening UVM's outreach ties to Vermont and the Community. Many of the ideas in the Five-Year Plan came to pass, building on the dual missions of the private college tradition and the land-grant tradition.

Throughout its history, UVM has managed a creative and somewhat paradoxical conflict between its identity as a private institution (1791) and its land-grant mission (1865). In its 1988 mission statement, UVM describes itself as a small land-grant comprehensive institution that "blends the academic heritage of a private university with the service mission in the land-grant tradition."

From 1965 to 1975 UVM's, enrollment grew from 4500 to 10,500

students. In response to gloomy national predictions about an expected precipitous decline in future enrollments at the end of the baby boom, the trustees called for a policy of stabilized enrollments and planning documents continued to stress the distinctive position of UVM as an institution offering all the benefits of a selective liberal arts college with the advantages of a comprehensive research mission. To stabilize enrollment and maintain an adequate fiscal base, UVM began to emphasize regional and national recruitment and soon occupied an enviable position in the national marketplace as a "Public Ivy" in 1983 and as a "prestigious institution" in the 1986 Barron's Guide. Both in-state and out-of-state applications soared to a highpoint in 1987 and 1988. As the proportion of Vermonters in its student body fell, UVM was perceived as increasingly disconnected from the concerns of the state, even though the institution continued to admit qualified Vermonters first and assured its constituents that all qualified Vermont residents would be admitted. The strong applicant pool was welcomed by many on campus, who regarded the increasingly competitive position of UVM as a reflection of academic strength.

Vermont legislators and many campus faculty and administrators continued to voice their belief that UVM should remain loyal to its Vermont constituents and insisted that the University needed to attend to its stated mission of public service. During this period, the state was experiencing severe economic and social disruptions and a "declining rural culture." In the forty years from 1950 to 1990, the nation went from 64 percent urban and 36 percent rural to 75 percent urban and 25 percent rural. In contrast, Vermont became less urban, moving from 64 percent to 68 percent rural. The attentions of a research university were clearly needed.

In the late 1980s the use of out-of-state enrollments to offset the loss of state support began to lose momentum. Undergraduate applications declined and questions about the institution's commitment to Vermont were growing more insistent. The university faced a dilemma. In its strategy to attract out-of-state students, it had somewhat dissociated itself from the very environment that made it such an attractive educational choice. It also was in danger of alienating itself from its natural Vermont constituency.

From 1978 to 1988, the public service mission and student community involvement was de-emphasized and significant cuts were made in the staff support for external relations. UVM initiated a program to encourage student volunteerism about 30 years ago. Hal Woods, who was friendly with Buckminster Fuller and other "big thinkers" of the time, won a grant to launch a University Year in Action program in the early 1970s and the university established a Center for Service Learning (CSL) that placed UVM in the forefront of the service-learning movement. Additional programs were then added, sometimes at the initiative of students, including a Volunteers-in-Action Program (VIA), a significant Service-Learning Internship Program, and a variety of service-based initiatives. UVM was also an early member of Campus Compact and recognized as a national leader in this movement. In the 1980s and early 1990s the financial condition of the institution led to a shift in recruitment emphasis rather than a deliberate change in mission. The economic conditions created by a significant

disinvestment in higher education in Vermont, had consequences for UVM's relationship with the state.

At the end of the 1980s, UVM began to experience a pattern of unstable leadership. There were only two presidents from 1966 to 1988. In the next decade there would be four presidential leadership transitions and eleven changes in leadership in academic affairs. This instability meant that the institution found it difficult to chart a reliable course as it began to experience new budgetary and identity challenges in the late 1980's brought on by reductions in state support.

Conscious and Unconscious Engagement

These services bring the university close to the people of Vermont, and build mutual confidence, trust and support. They add substance to the land-grant ideal, which considers the borders of the campus and the state to be the same.

—UVM Annual Planning Report 1975

In 1992, President Thomas Salmon convened a President's Commission on Critical Choices. In preparation for this study, the UVM Planning council prepared a series of reports. One of these was a 1991 report on Outreach and Service. It contains an excellent taxonomy of how the concepts of service and outreach were understood at UVM at that time. The list is extensive and revealing. It was clear then, and is clear now, that UVM's educational outreach, public service and external communication efforts are rich and diverse. The categories of service and outreach defined in 1991 were as follows. None of them reflected evidence of attention to sustained partnerships or collaborations between the university and particular community groups, state agencies or business organizations. The concept of engagement was not yet part of UVM's vocabulary.

1. Programs defined at the institutional level whose purpose is to support public service; educational outreach to broad populations such as Extension, Continuing Education, Continuing medical Education and the Fleming Museum; and communication to general audiences such as Alumni Relations, Development and Public Relations.

2. New capacities whose outreach or service role has been defined or initiated as a community need that could best be addressed by UVM and that therefore gravitated into UVM ownership, such as the UVM Media Library Consortium in the main library.

3. Facilities and programs defined by a community need best answered by the university's expertise, such as various clinical services and contract archaeology services.

4. Activities that were defined by others and have since been given to the university to manage, such as the Lane Music Series.

5. Programs generated by a response to external funding opportunities and that have acquired a life of their own, such as the Governor's institute for Science and Technology for high school students.

6. Services and programs that emerged through student initiatives such as the King Street Youth Center, UVM Rescue Service (a student-operated emergency medical service) and Volunteers in Action (VIA).

7. Activities that are hybrids of a community interest linked to a University educational goal, such as the Vermont Writing project in the Department of English.

8. Functions that are integral to UVM's educational programs but that also meet a community

need, such as many student internships or the Dental Hygiene Clinic.

9. Individual professional service provided by particular University personnel on an ad hoc basis, such as participation on advisory boards and commissions, testimony before legislative committees, consultation.

10. Community and campus service activities that derive from particular interests of a unit or individual in areas such as cultural diversity.

11. Individual volunteer service assisted by a university infrastructure such as "You have a Friend at UVM" (a mentoring program that links students with UVM staff members).

On the basis of this review of UVM's efforts, the President's Commission called for a "new understanding with the State of Vermont" based on the concept that economic development will depend upon an enhanced relationship between the state and the only public research, land-grant university in the state. The caveat included in the report was that the extent of involvement would be shaped by "reaching a necessary accommodation between the state's ability to provide for the university and the university's need for support." In 1991, the university still saw community involvement as a separate function—outreach or public service—that was supported largely by a separate state allocation for medicine and agriculture or required as a means to achieve particular unit missions.

Over the past seven years, there has been a significant trend toward university-community relationships that are better characterized as forms of engagement. In a survey conducted in 1997 as part of the preparation for this institutional portrait, a large array of activities were reported under the categories of (a) arts, humanities and cultural enrichment; (b) business and technical assistance; (c) community and economic development; (d) education and youth services; (e) the environment, natural resources and agriculture; (f) health services; and (g) information and technology transfer. Many of these projects and activities have the characteristics of engagement, rather than outreach or service.

In addition, UVM has a long list of grants and contracts awarded to support research and technical assistance in service to government and non-governmental agencies and to communities in the state. These projects range from research to support the design of a Vermont system for tracking client progress in the Department of Mental Health's programs to a Consumer Assistance Program supported by the Vermont Attorney General's Office to research funded by the Vermont Dairy Promotion Council. Some of these activities are specific projects while others reflect significant long-term partnerships.

Although it is difficult to quantify or evaluate the impact of these more engaged activities or to determine how strongly the institution has moved along the spectrum from professional service to organized outreach to engagement, the cumulative effect of these partnerships and collaborations has moved UVM into a much closer and more intentional alignment with the priorities of the state and its communities since 1991. In addition, these new relationships have opened up new educational and research opportunities for UVM's faculty and students.

The 1991 study of outreach at UVM called for clearer policies regarding outreach, for maximizing quality within the context of foreseeable and limited

human and financial resources and for better internal and external communication. All of this was to be approached in a manner that would not squelch the "grass roots" creativity that had characterized the most successful outreach efforts identified by the committee. During the early 1990s outreach activities were deliberately decentralized and driven by the role that outreach could play in the achievement of individual college and unit missions. There was little evidence of an overall university commitment to a coherent outreach or public service agenda. The resulting network of university-community partnerships connects the various academic units to every major societal system (e.g. health, education, environmental, social services, business, cultural) and to every geographic region of the state. The extent of this fabric of work has surprised everyone who has examined the survey results. The expansion of these efforts in the absence of intentional central support and encouragement is a distinguishing feature of UVM's highly decentralized environment. The challenge in the future will be to preserve the creativity that has given rise to these many activities, while, in cooperation with the leadership of Vermont, to introduce and encourage greater coherence and strategic direction in UVM's collective efforts over the next decade. This change will require the establishment of a "culture of evidence" at UVM that allows the University to document and assess the impact of its individual and collective community-based efforts.

The 1991 report concluded that there was ample evidence of many outreach and service efforts. One could argue that the very presence of the committee suggests that the relationship between UVM and the state was again emerging as a focus of attention. One dean recently remarked after looking at the 1991 report, "It looks like everyone at UVM who engages in service is bowling alone." In addition, due to the decentralized and individually initiated character of these activities, the University was, in 1991, collectively unaware of the nature and extent of its community involvement and did not focus on the consequences of this level of involvement, either for its students, faculty and staff or for the community-at-large. In such an environment, the collective effect of university-community work upon the creation of social capital and the network of relationships and trust that create a civil society is hard to gauge. This lack of awareness of the extent and impact of UVM's relationships with Vermont remains the case today, both within the institution and among its many external constituencies. Recent efforts to communicate more directly and frequently with Vermont's state and community leadership have begun to change this.

Throughout this period, despite many changes in the *Officer's Handbook*, a policy compendium that, among other things, defines faculty research, teaching and service, no attention has been given to creating a policy framework to support professional service, outreach or engagement by faculty and students. In fact, professional service is defined primarily in terms of contributions to the creation of a campus community. There is also no reference to service in the *Staff Handbook*.

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Moving Toward Engagement

The measure of an educated person is defined by what we can do, and have the will to do, with what we know and how much we genuinely notice and care about the consequences of our actions. We are also defined by our sensibilities and values and by the extent to which we seek to live virtuous lives. This applies to us as individual scholars and to our collective work as a community of scholars. Something is lost when we separate knowledge and responsibility. UVM has long recognized the importance of keeping the connection alive.

—Judith A. Ramaley, Inaugural Speech 1997

As Tom Salmon's presidency drew to a close, there was a movement toward a broader interpretation of the mission of UVM, as evidenced by the contents of a document entitled "A Brief Profile of the University of Vermont," which was prepared for the presidential search. However, in that document the land-grant mission was still described as "outreach" and informally viewed as a function of the Division of Agriculture and Natural Resources and some of the professional programs. It was not generally thought of as relevant to the research and teaching roles of the arts and sciences or of some of the professional schools.

To quote the profile document, "UVM's outreach mission is closely linked to the 1800s land-grant movement, which, with intellectual impetus from Senator Justin Morrill of Vermont, focused on increasing access to university research and teaching in the areas of agriculture and the mechanical arts — the driving factors of the American economy of that time. Today there are powerful demands from the nation's workforce for access to the entire array of intellectual activity in the contemporary university. UVM is fulfilling this mission primarily through efforts in its Division of Continuing Education and its Extension System, and the University is currently constructing and expanding its distance learning capacity."

Notable about this statement is its exclusive emphasis on outreach as the manifestation of the land-grant mission and the attachment of the land-grant mission to a particular set of fields. In addition, while the statement recognizes that there are powerful demands for access to the "entire array of intellectual activity," many faculty at UVM still assume that the land-grant mission is confined to a limited number of academic programs originally affiliated with the State Agricultural College. In fact, of course, the land-grant philosophy can apply to varying extents to all the academic units; and can shape undergraduate education and graduate and professional education at UVM, as well as the research mission and how research is conducted and how knowledge is disseminated (i.e. outreach). A land-grant mission is better described as a state of mind rather than a definition of particular forms of interaction or particular areas of disciplinary emphasis. These possibilities were contained within the original concept espoused by Justin Morrill and were applied to the early coursework in the State Agricultural College at UVM. The trustees in those early days approached agricultural education as a "mere extension of the prevailing classical and scientific curriculum," much to the annoyance of Vermont farmers who had serious doubts about the value of a classical education for a farmer.

A leadership transition occurred at UVM in

1997–98 with the appointment of a new president and a new provost. In this transition, the University has begun to explore the ideas of engagement and the implications of this form of university-community collaboration for the future of UVM. Funds were obtained from the 1998 Vermont legislature for the creation of a UVM Community Scholarship program to support Vermonters who have been deeply committed to community service. A Self-Study is underway in preparation for the next institutional accreditation review and again the mission and objectives of the University are under review. The Faculty Senate and academic units across campus are examining the principles upon which the curriculum is based and the roles and career opportunities available for both faculty and staff in a rapidly changing environment. A new infrastructure is being designed that will support scholarship and engagement are under development. This new exploration is guided by a set of core assumptions that the new president articulated in her inaugural speech and later in the spring during the beginning of the Self-Study for the 1998–99 reaccreditation process for the New England Association of Schools and Colleges (NEASC).

Drawing upon both the traditions of the land-grant movement and contemporary criticism of the land-grant university today, UVM has begun to use the term "engaged university" to describe the features of an institution committed to service to society. The principles upon which the self-study process is being conducted are as follows.

- The primary purposes of the 21st century engaged university are to conduct research on the pressing problems facing society today, to promote the application of current knowledge to societal problems and to prepare its students to address these problems through a curriculum that emphasizes scholarly work in both the liberal arts and in the professions.
- Scholarly work consists of discovery, integration of new knowledge into an existing discipline or body of knowledge, interpretation to a variety of audiences and application of knowledge to a variety of contemporary problems. In a land-grant university all faculty, staff and students can and should engage in scholarly work, either to address societal concerns or to strengthen the educational environment or to promote effective use of campus resources.
- The classic tripartite mission of research, instruction and service must be replaced by a broader and richer definition of scholarship that supports a full range of inquiry and application both within the curriculum and research environments created by the university and in field, community, and other applied settings. The University cannot and must not be insular. Scholarly work that involves instruction and research combined with service must be valued, rigorously reviewed and effectively rewarded.

Among institutions that are oriented to address directly the social and economic problems of our society, the engaged university is distinguished by the comprehensiveness of its academic mission and its range of graduate and undergraduate programs and by the effective integration of scholarship and service within both the curriculum and the research mission.

- Success in the university of the future will be defined by the rigor of scholarly work, by the quality of the educational experience of undergraduate and graduate and professional

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students, by the effectiveness of the partnerships that link the university with the community, and by the impact of the institution on the quality of life of citizens of the state, the nation and the world.

Through intense interactions with the communities and citizens of a particular state and through national networks that promote inter-institutional collaboration, UVM as a land-grant universities must serve as a primary intellectual resource for the state of Vermont and, in cooperation with its sister land-grant institutions, for the new England region. To accomplish this goal, UVM must draw upon all its disciplines, both to accomplish its mission of service to society and to provide the educational experiences that will prepare our students to make constructive and meaningful contributions to society. We must introduce all undergraduates to the core perspectives of the humanities, social sciences, and sciences and mathematics.

In addition, through intensive study of a particular discipline at the undergraduate as well as graduate level, as well as by participating in research or field experiences and service-learning opportunities in both the liberal arts and the professions, our students can learn to discover, interpret and apply the knowledge necessary to address the challenges of society today. In the land-grant mission, a balance is maintained between theory and application, between discovery and interpretation, between dispassionate observation and deep involvement, and between the liberal arts and the professions. This same balance must be struck within the educational experience of our students.

We have posed the following questions as we prepare to enter the 21st century.

1. What are our aspirations for our students as we prepare them to live their lives in a new era? What implications will this have for the design and goals of an undergraduate education and for graduate education? How might we assess our progress in achieving our educational goals? What do we mean by academic quality and how can we measure it?

2. How are faculty and staff roles changing in higher education today and how can we best envision the variety of faculty and staff careers possible in a new era?

3. What kind of educational and scholarly/research capacity and what kind of intellectual environment must we create to achieve our aspirations and goals for ourselves and for our students? What principles should we use in allocating resources, in measuring our progress? What support structures will we need to help us achieve our goals?

4. What does it mean to be "an engaged campus" and how might UVM best support the social, intellectual, cultural, environmental and economic needs of Vermont and the nation in the future?

An important tool in developing an appropriate strategy for UVM as an engaged university is the matrix developed by Barbara Holland (1997). According to Holland, the term "the engaged campus" has been used as "a generic label for the many diverse expressions of institutional commitment linking the academy to community priorities and needs." Using her model (above, right) we can summarize the current condition of UVM.

In 1991, many of these key factors would have been pegged at the Medium Relevance Level. To achieve sustainability, however, it will be important to provide additional support for engagement.

Mission	High Relevance
Promotion and tenure	Low Relevance, with exceptions in some units
Organization Structure	High Relevance
Student involvement	Between High Relevance and Full Integration
Faculty involvement	High Relevance
Community Involvement	Between High Relevance and Full Integration
Campus Publications	Full Integration

Regardless of local circumstances and institutional traditions and history, there are a few conditions that must be in place at any institution for a community-based strategy to work. UVM is currently developing these key elements.

- *Community work must be valued as a meaningful educational experience and a legitimate mode of scholarly work* (approach: introduce engagement and professional service into promotion and tenure guidelines and new approaches to the documentation and evaluation of faculty and student work)
- *Mediating structures must be provided to help faculty and students identify community-based learning and research opportunities and technical support must be available to help faculty and students use these opportunities and assess the results of such programs, both from their own point-of-view and from the perspectives of the community and its priorities and experiences* (approach: design of a new Center for Learning and Teaching that will support assessment strategies and the effective use of technology as well as other pedagogical approaches to community-based and problem-based learning)
- *Opportunities must be provided for faculty and students to develop the skills to participate in research and curricular programs in a collaborative mode with partners from different academic disciplines and with significant community involvement* (approach: rebuilding support for community-based learning, public service and volunteerism within student affairs; additional investments in faculty and staff development; participation in national workshops and projects that promote institutional change)

As UVM moves toward more intentional and conscious engagement with Vermont and beyond, it is clear that there are several areas in which new definitions, new expectations, new relationships and new commitments and investments will be necessary. These areas include (1) the development and use of broader and well-articulated definitions of scholarship for both faculty and students; (2) the development of documentation and rigorous evaluation of community-based work and professional service; (3) the creation of effective mediating structures to support sustainable university-community collaboration; (4) the establishment of measures of quality and the value of collaborations to both the campus participants and community partners; and (5) the design of curricular elements that support community and problem-focused work and community engagement for students. This is only the beginning as UVM gears up toward a full and rich agenda of engagement.

In 1996, the campus began to revitalize its civic responsibilities and its role as a public university and to reaffirm the value and importance of engagement, public service, service-learning and volunteerism. The number of student interns

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supported by the Center for Service Learning is increasing again. In FY 1997 there were 85 who offered a minimum of 91,800 hours of service. Approximately 1960 students participated in organized volunteer programs in Volunteers in Action (VIA), Residential Life community service and the UVM Rescue Service (which is student operated and provides emergency medical services both on campus and in the community.) Together, these groups offered 97,000 additional hours of service. Not included in these figures are the increasing service-learning activities associated with the curriculum, our work-study students who participate in community service (approximately 150 students delivering 1875 hours of service), the community service activities of fraternities and sororities, or the activities during alternative spring break. Altogether, over 20 percent of UVM students are involved in volunteer activities every year and many more participate in service-learning experiences. We are currently conducting a case study for our ten-year reaccreditation Self-Study that will attempt to quantify and assess the scope and impact of the growing component of community-based learning in our curriculum. In addition, with the assistance of a major gift, we have begun to build a much stronger infrastructure to support service-learning and internships in the not-for-profit sector.

Another component of UVM that has been changing rapidly since 1991 is the organization and operation of UVM Extension. The 1991 Report on Outreach and Service describes Extension as taking responsibility for organizing research, teaching and service areas in the broad areas of agriculture, nutrition, food safety and health, natural resources and environmental management, and family and community resources and economic development.

At its peak, UVM Extension had over 100 full-time faculty and staff and maintained a University Extension Center in each of Vermont's fourteen counties, in addition to several research stations. In 1998, UVM Extension is a smaller operation that operates in a combined regional and statewide mode. There are no longer individual county offices. Using both the introduction of technology and a shifting emphasis from a county organization to a regional strategy, UVM Extension now is experimenting with new collaborative arrangements with the Division of Continuing Education and has moved to regional advisory boards and curriculum/program teams co-chaired by a field and a campus faculty member. UVM Extension is also drawing more frequently upon the expertise of faculty and students throughout the University in order to respond to the needs of Vermont communities and UVM Regional Centers are becoming a door into the University for citizens all over the state and, in some cases, in neighboring states.

The leadership of Extension has adopted the philosophy that more faculty and staff engagement throughout the University will occur through the involvement of students in community-based learning as a component of their education. This growing emphasis on experiential learning has been accompanied by new efforts to increase Vermont stakeholder involvement in planning and supporting UVM Extension programs. Extension faculty are beginning to work in modes that incorporate traditional credit instruction, extension education and research. This multifunctional mode has

been endorsed and reinforced by Title VIII of the Farm Bill that was signed in June 1998. Extension programming is based on citizen needs, our own institutional strengths, and the strengths of our partners. Historically, UVM Extension has paid special attention to under-served populations, utilizing programs such as the USDA feeding program, partnerships with individuals and institutions (schools, courts), partnerships with organizations (federal and state agencies, non-governmental organizations) and effective linkages to larger systems such as the national Extension system and various Vermont community systems. This emphasis continues and is increasingly broadening to include attention to broad-based community development and economic development strategies within a context of sustainable agriculture and conversation of the natural landscape.

For undergraduates at UVM, the presence of a statewide mission and access to a strong research environment offers opportunities to engage in service and good citizenship through participation in scholarly activities both on campus and throughout the state that result in the application of knowledge to complex state and community problems. This growing area of civic engagement through the generation and application of knowledge is becoming a distinctive feature of the undergraduate and graduate experience at UVM. It is distinguished from service-learning to the extent that students actually participate in conducting basic and applied research that can contribute to the solution of societal problems. This occurs naturally in programs such as the professional development school model in the College of Education and Social Services where students, professional teachers and faculty work together to enhance the learning environment in a particular school or a particular community. This is accomplished through the integration of research, professional development and collaborative initiatives that engage the teaching staff of the school in finding real answers to real questions, to paraphrase the title of a monograph published on this experience by several UVM faculty and their colleagues in the Essex Junction school system. Other examples include the blending of education, research and new economic and community development and work strategies. Increasingly, these models engage students as well as faculty, staff and community participants.

Models such as these can offer students a chance to learn the fundamental skills required of a citizen in a democracy. According to David Sehr, Thomas Jefferson and John Dewey, both believed that the vitality of a democratic society depends upon an educational system "fundamentally dedicated to enabling young people to become active, informed, skilled participants in shaping of public policy and culture." This will, in turn, create an "ethic of care and responsibility" toward one's fellow citizens that is the essence of public democracy. UVM is seeking to follow the public democracy tradition, both through the opportunities it offers its students and through the example we set in our relationships with the communities of Vermont, especially the surrounding neighborhoods of Burlington. In addition to volunteerism, internships that promote service-learning, and curricular designs that utilize a community and service base to accomplish our educational goals, UVM is beginning to involve

students in its own public service mission as full participants. In this way, students can discover that knowledge has consequences and that knowledgeable action can dramatically shape public policy and culture.

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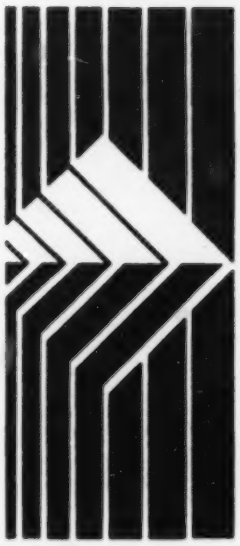

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